09/624,146

```
Trying 3106016892...Open

Welcome to STN International!  Enter x:x
LOGINID:ssspta1806jxt
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2  Dec 17   The CA Lexicon available in the CAPLUS and CA files
 NEWS  3  Feb 06   Engineering Information Encompass files have new names
 NEWS  4  Feb 16   TOXLINE no longer being updated
 NEWS  5  Apr 23   Search Derwent WPINDEX by chemical structure
 NEWS  6  Apr 23   PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
 NEWS  7  May 07   DGENE Reload
 NEWS  8  Jun 20   Published patent applications (A1) are now in USPATFULL

 NEWS EXPRESS  May 23 CURRENT WINDOWS VERSION IS V6.0a,
               CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP),
               AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 11:19:20 ON 29 JUN 2001

=> file medline biosis caplus

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.15       0.15

FILE 'MEDLINE' ENTERED AT 11:19:38 ON 29 JUN 2001

FILE 'BIOSIS' ENTERED AT 11:19:38 ON 29 JUN 2001
COPYRIGHT (C) 2001 BIOSIS(R)

FILE 'CAPLUS' ENTERED AT 11:19:38 ON 29 JUN 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

=> s complementary detrmining region#(10a)epitope#(10a)detect?
```

L1 0 COMPLEMENTARY DETRMINING REGION#(10A) EPITOPE#(10A) DETECT?

=> s complementary determining region#(10a)epitope#

L2 3 COMPLEMENTARY DETERMINING REGION#(10A) EPITOPE#

=> s l2 and ELISA

L3 0 L2 AND ELISA

=> d l2 1-3 bib ab kwic

L2 ANSWER 1 OF 3 MEDLINE
AN 1998040648 MEDLINE
DN 98040648 PubMed ID: 9373317
TI Engineering of doubly antigenized immunoglobulins expressing T and B viral epitopes.
AU Brumeanu T D; Bot A; Bona C A; Dehazya P; Wolf I; Zaghouani H
CS Department of Microbiology, Mount Sinai School of Medicine, New York, NY 10029, USA.
SO IMMUNOTECHNOLOGY, (1996 Jun) 2 (2) 85-95.
Journal code: CR0; 9511979. ISSN: 1380-2933.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199712
ED Entered STN: 19980109
Last Updated on STN: 19980109
Entered Medline: 19971210
AB BACKGROUND: Concomitant with the advent of molecular biology techniques and the ability of immunoglobulins (Ig) to recognize proteins, carbohydrates, lipopeptides and nucleic acids, vaccinologists have taken advantage to develop a variety of prophylactic and therapeutic vaccine prototypes. Presentation of epitopes to the immune system by Ig molecules as a carrier platform offers several advantages: (i) long exposure of the antigen to antigen processing cells (APCs) by virtue of their long half life, (ii) lack of the immune response to self Ig, focusing the immune response to protective epitopes rather than irrelevant epitopes, (iii) it takes advantage of the properties of Fc fragment of various isotypes like crossing the placenta (IgG) or homing in epithelia (IgA), and (iv) targeting various antigens by virtue of their binding specificity. OBJECTIVES: This study was aimed to genetically and enzymatically engineer immunoglobulins (Igs) able to express and to deliver concomitantly immunodominant T and B viral **epitopes**. STUDY DESIGN: Using a genetic engineering approach we replaced the **complementary determining region** 3 (CDR3) and complementary determining region 2 (CDR2) of an anti-arsonate 91A3 mAb with the immunodominant HA110-120 T cell epitope and HA150-159 B cell epitope of hemagglutinin (HA) of influenza A/PR8 virus, respectively. The second doubly antigenized Ig (Ig-HA-Gal-B) was constructed on an Ig in which CDR3 was replaced with HA110-120 T cell epitope while the HA150-159 B cell epitope was enzymatically assembled through an imidic bond on the galactose (Gal) residues of the carbohydrate moiety. RESULTS AND CONCLUSIONS: Both genetically and genetically/enzymatically doubly antigenized Ig constructs (dAIg) were properly folded and they were able to activate peptide-specific T cells and to elicit anti-viral antibody response in mice. This demonstrates that the CDR loops as well as carbohydrate moieties of immunoglobulins represent permissive sites for grafting foreign epitopes without altering the structural integrity of immunoglobulins and the immunogenicity of the viral peptides.

AB . . . aimed to genetically and enzymatically engineer immunoglobulins (Igs) able to express and to deliver concomitantly immunodominant T and B viral **epitopes**. STUDY DESIGN: Using a genetic engineering approach we replaced the **complementary determining region** 3 (CDR3) and complementary determining region 2 (CDR2) of an anti-arsonate 91A3 mAb with the immunodominant HA110-120 T cell epitope. . .

L2 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1998:68605 BIOSIS
DN PREV199800068605
TI Different properties of T-cell epitopes within complementarity determining regions (CDR) 1 and 2 of idiotypic VH in B-NHL.
AU Wen, Yue-Jine; Lim, Seah H.; Burnett, A. K.
CS Dep. Haematol., Univ. Wales Coll. Med., Cardiff UK
SO Blood, (Nov. 15, 1997) Vol. 90, No. 10 SUPPL. 1 PART 1, pp. 515A. Meeting Info.: 39th Annual Meeting of the American Society of Hematology San Diego, California, USA December 5-9, 1997 The American Society of Hematology . ISSN: 0006-4971.
DT Conference
LA English
IT . . .
(Chemical Coordination and Homeostasis); Tumor Biology
IT Parts, Structures, & Systems of Organisms
T cell: VH idiotypic, blood and lymphatics, **complementary determining region**, immune system, **epitope**
IT Diseases
B-NHL [B-cell non-Hodgkin's lymphoma]: blood and lymphatic disease, immune system disease, neoplastic disease
IT Chemicals & Biochemicals
MHC. . .

L2 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1996:485066 BIOSIS
DN PREV199699200322
TI Engineering of doubly antigenized immunoglobulins expressing T and B viral epitopes.
AU Brumeanu, T.-D.; Bot, A.; Bona, C. A. (1); Dehazya, P.; Wolf, I.; Zaghouani, H.
CS (1) Dep. Microbiol., Mount Sinai Sch. Med., 1 Gustave L. Levy Place, New York, NY 10029 USA
SO Immunotechnology (Amsterdam), (1996) Vol. 2, No. 2, pp. 85-95. ISSN: 1380-2933.
DT Article
LA English
AB Background: Concomitant with the advent of molecular biology techniques and the ability of immunoglobulins (Ig) to recognize proteins, carbohydrates, lipopeptides and nucleic acids, vaccinologists have taken advantage to develop a variety of prophylactic and therapeutic vaccine prototypes. Presentation of epitopes to the immune system by Ig molecules as a carrier platform offers several advantages: (i) long exposure of the antigen to antigen processing cells (APCs) by virtue of their long half life, (ii) lack of the immune response to self Ig, focusing the immune response to protective epitopes rather than irrelevant epitopes, (iii) it takes advantage of the properties of Fc fragment of various isotypes like crossing the placenta (IgG) or homing in epithelia (IgA), and (iv) targeting various antigens by virtue of their binding specificity. Objectives: This study was aimed to genetically and enzymatically engineer immunoglobulins (Igs) able to express and to deliver concomitantly immunodominant T and B viral **epitopes**. Study design: Using a genetic engineering approach we replaced the **complementary**

determining region 3 (CDR3) and complementary determining region 2 (CDR2) of an anti-arsonate 91A3 mAb with the immunodominant HA110-120 T cell epitope and HA150-159 B cell epitope of hemagglutinin (HA) of influenza A/PR8 virus, respectively. The second doubly antigenized Ig (Ig-HA-Gal-B) was constructed on an Ig in which CDR3 was replaced with HA110-120 T cell epitope while the HA150-159 B cell epitope was enzymatically assembled through an imidic bond on the galactose (Gal) residues of the carbohydrate moiety. Results and conclusions: Both genetically and genetically/enzymatically doubly antigenized Ig constructs (dAIg) were properly folded and they were able to activate peptide-specific T cells and to elicit anti-viral antibody response in mice. This demonstrates that the CDR loops as well as carbohydrate moieties of immunoglobulins represent permissive sites for grafting foreign epitopes without altering the structural integrity of immunoglobulins and the immunogenicity of the viral peptides.

AB. . . aimed to genetically and enzymatically engineer immunoglobulins (Igs) able to express and to deliver concomitantly immunodominant T and B viral **epitopes**. Study design: Using a genetic engineering approach we replaced the **complementary determining region** 3 (CDR3) and complementary determining region 2 (CDR2) of an anti-arsonate 91A3 mAb with the immunodominant HA110-120 T cell epitope. . .

=> s complementary determining region# and epitope# and elisa

L4 2 COMPLEMENTARY DETERMINING REGION# AND EPITOPE# AND ELISA

=> d l4 1-2 bib ab kwic

L4 ANSWER 1 OF 2 MEDLINE
AN 1998147062 MEDLINE
DN 98147062 PubMed ID: 9486108
TI Natural antibodies that react with V-region peptide **epitopes** of DNA-binding antibodies are made by mice with systemic lupus erythematosus as disease develops.
AU Ward F J; Knies J E; Cunningham C; Harris W J; Staines N A
CS Infection and Immunity Research Group, King's College London, UK.
SO IMMUNOLOGY, (1997 Nov) 92 (3) 354-61.
Journal code: GH7; 0374672. ISSN: 0019-2805.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199803
ED Entered STN: 19980319
Last Updated on STN: 19980319
Entered Medline: 19980309
AB Cross-reactive idiotypes (CRI) have been detected on anti-DNA autoantibodies associated with lesions typical of systemic lupus erythematosus. In order to analyse the antigenic make up of idiotypes on anti-DNA monoclonal antibodies (mAb) V-88 (IgG1 kappa) and F-423 (IgG3 kappa), derived respectively from an adult (NZB x NZW)F1 and a fetal MRL/Mp-lpr/lpr mouse, a set of overlapping hexapeptides representing the VH and VL regions of mAb V-88 and F-423 were synthesized and reacted with a range of sera in pepscan enzyme-linked immunosorbent assays (**ELISA**) taken from normal and lupus mouse strains. Serum pools were collected both from normal BALB/c and lupus MRL/Mp-lpr/lpr and (NZB x NZW)F1 mice at 10, 20 and 30 weeks of age and analysed for the presence of spontaneously produced anti-V-region peptide IgM and IgG antibodies. IgM antibodies from both the lupus mice reacted with the same V-region **epitopes**, and although some **epitopes** mapped to similar

locations in the two mAb, the maps for V-88 and F-423 were not identical. In MRL/Mp-lpr/lpr mice, as lupus disease progressed there was a switch from IgM antibodies to IgG anti-peptide antibodies whose specificity for the peptide antigens coincided with but was better defined than that of the IgM antibodies. The identified idiotopes were located in both **complementary determining regions** (CDR) and framework region (FR) regions, indicating that some contribute to CRI shared by other related antibodies, while others were unique to either mAb V-88 or F-423. In conclusion, we have dissected and identified a mosaic of antibody V-region idiotopes that contribute to the idiotype of an anti-DNA autoantibody and against which autoantibodies are made naturally in lupus disease.

TI Natural antibodies that react with V-region peptide **epitopes** of DNA-binding antibodies are made by mice with systemic lupus erythematosus as disease develops.

AB . . . regions of mAb V-88 and F-423 were synthesized and reacted with a range of sera in pepscan enzyme-linked immunosorbent assays (**ELISA**) taken from normal and lupus mouse strains. Serum pools were collected both from normal BALB/c and lupus MRL/Mp-lpr/lpr and (NZB. . . spontaneously produced anti-V-region peptide IgM and IgG antibodies. IgM antibodies from both the lupus mice reacted with the same V-region **epitopes**, and although some **epitopes** mapped to similar locations in the two mAb, the maps for V-88 and F-423 were not identical. In MRL/Mp-lpr/lpr mice,. . . antigens coincided with but was better defined than that of the IgM antibodies. The identified idiotopes were located in both **complementary determining regions** (CDR) and framework region (FR) regions, indicating that some contribute to CRI shared by other related antibodies, while others were. . .

CT . . .

Acid Sequence
Antibodies, Antinuclear: GE, genetics
*Antibodies, Antinuclear: IM, immunology
Antibodies, Monoclonal: GE, genetics
Antibody Specificity
Base Sequence
Disease Progression
***Epitopes: IM, immunology**
IgG: BI, biosynthesis
IgM: BI, biosynthesis
*Immunoglobulin Variable Region: IM, immunology
*Lupus Erythematosus, Systemic: IM, immunology
Mice
Mice,. . .

CN 0 (Antibodies, Antinuclear); 0 (Antibodies, Monoclonal); 0 (**Epitopes**); 0 (IgG); 0 (IgM); 0 (Immunoglobulin Variable Region)

L4 ANSWER 2 OF 2 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1998:6547 BIOSIS
DN PREV199800006547
TI Natural antibodies that react with V-region peptide **epitopes** of DNA-binding antibodies are made by mice with systemic lupus erythematosus as disease develops.
AU Ward, F. J.; Knies, J. E. G.; Cunningham, C.; Harris, W. J.; Staines, N. A. (1)
CS (1) Infect. Immunity Res. Group, Div. Life Sci., King's Coll. London, Campden Hill Rd., London W8 7AH UK
SO Immunology, (Nov., 1997) Vol. 92, No. 3, pp. 354-361.
ISSN: 0019-2805.
DT Article
LA English

AB Cross-reactive idiotypes (CRI) have been detected on anti-DNA autoantibodies associated with lesions typical of systemic lupus erythematosus. In order to analyse the antigenic make up of idiotypes on anti-DNA monoclonal antibodies (mAb) V-88 (IgG1kappa) and F-423 (IgG3kappa), derived respectively from an adult (NZB X NZW)F1 and a fetal MRL/Mp-lpr/lpr mouse, a set of overlapping hexapeptides representing the VH and VL regions of mAb V-88 and F-423 were synthesized and reacted with a range of sera in pepscan enzyme-linked immunosorbent assays (**ELISA**) taken from normal and lupus mouse strains. Serum pools were collected both from normal BALB/c and lupus MRL/Mp-lpr/lpr and (NZB X NZW)F1 mice at 10, 20 and 30 weeks of age and analysed for the presence of
spontaneously produced anti-V-region peptide IgM and IgG antibodies. IgM antibodies from both the lupus mice reacted with the same V-region **epitopes**, and although some **epitopes** mapped to similar locations in the two mAb, the maps for V-88 and F-423 were not identical. In MRL/Mp-lpr/lpr mice, as lupus disease progressed there was a switch from IgM antibodies to IgG anti-peptide antibodies whose specificity for the peptide antigens coincided with but was better defined than that of the IgM antibodies. The identified idiotopes were located in both **complementary determining regions** (CDR) and framework region (FR) regions, indicating that some contribute to CRI shared by other related antibodies, while others were unique to either mAb
V-88 or F-423. In conclusion, we have dissected and identified a mosaic of
antibody V-region idiotopes that contribute to the idiotype of an anti-DNA
autoantibody and against which autoantibodies are made naturally in lupus disease.

TI Natural antibodies that react with V-region peptide **epitopes** of DNA-binding antibodies are made by mice with systemic lupus erythematosus as disease develops.

AB. . . regions of mAb V-88 and F-423 were synthesized and reacted with a range of sera in pepscan enzyme-linked immunosorbent assays (**ELISA**) taken from normal and lupus mouse strains. Serum pools were collected both from normal BALB/c and lupus MRL/Mp-lpr/lpr and (NZB. . . spontaneously produced anti-V-region peptide IgM and IgG antibodies. IgM antibodies from both the lupus mice reacted with the same V-region **epitopes**, and although some **epitopes** mapped to similar locations in the two mAb, the maps for V-88 and F-423 were not identical. In MRL/Mp-lpr/lpr mice,. . . antigens coincided with but was better defined than that of the IgM antibodies. The identified idiotopes were located in both **complementary determining regions** (CDR) and framework region (FR) regions, indicating that some contribute to CRI shared by other related antibodies, while others were. . .

IT . . .
Homeostasis)

IT Diseases
systemic lupus erythematosus: connective tissue disease, immune system disease

IT Chemicals & Biochemicals
DNA-binding antibody: V-region peptide **epitopes**, natural antibody reaction

=> s complementary determining region# and polymerase chain reaction#

L5 83 COMPLEMENTARY DETERMINING REGION# AND POLYMERASE CHAIN REACTION#

=> s COMPLEMENTARY DETERMINING REGION# (10a) POLYMERASE CHAIN REACTION#

L6 12 COMPLEMENTARY DETERMINING REGION# (10A) POLYMERASE CHAIN REACTIO

N#

=> sl6 and Elisa

SL6 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l6 and elisa

L7 0 L6 AND ELISA

=> dup rem l6

PROCESSING COMPLETED FOR L6
L8 8 DUP REM L6 (4 DUPLICATES REMOVED)

=> d l8 1-8

L8 ANSWER 1 OF 8 MEDLINE
AN 2001045136 MEDLINE
DN 20372241 PubMed ID: 10917573
TI Conversion to full donor chimerism following donor lymphocyte infusion is associated with disease response in patients with multiple myeloma.
AU Orsini E; Alyea E P; Chillemi A; Schlossman R; McLaughlin S; Canning C; Soiffer R J; Anderson K C; Ritz J
CS Center for Hematologic Oncology, Dana-Farber Cancer Institute, and Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts 02115, USA.
NC AI29530 (NIAID)
CA78378 (NCI)
SO BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION, (2000) 6 (4) 375-86.
Journal code: CUA. ISSN: 1083-8791.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200012
ED Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001207

L8 ANSWER 2 OF 8 MEDLINE DUPLICATE 1
AN 2000032283 MEDLINE
DN 20032283 PubMed ID: 10564390
TI Blastic transformation of mantle cell lymphoma: genetic evidence for a clonal link between the two stages of the tumour.
AU Laszlo T; Matolcsy A
CS Department of Pathology, University Medical School of Pecs, Pecs, Hungary.
SO HISTOPATHOLOGY, (1999 Oct) 35 (4) 355-9.
Journal code: GB4; 7704136. ISSN: 0309-0167.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199912
ED Entered STN: 20000113
Last Updated on STN: 20000113
Entered Medline: 19991222

L8 ANSWER 3 OF 8 MEDLINE DUPLICATE 2
AN 1999133341 MEDLINE

DN 99133341 PubMed ID: 9934578
TI Distinct clonal origin of low-grade MALT-type and high-grade lesions of a multifocal gastric lymphoma.
CM Comment in: Histopathology. 1999 Jan;34(1):71-5
AU Matolcsy A; Nagy M; Kisfaludy N; Kelenyi G
CS Department of Pathology, University Medical School of Pecs, Hungary.
SO HISTOPATHOLOGY, (1999 Jan) 34 (1) 6-8.
Journal code: GB4; 7704136. ISSN: 0309-0167.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199904
ED Entered STN: 19990426
Last Updated on STN: 19990426
Entered Medline: 19990413

L8 ANSWER 4 OF 8 MEDLINE DUPLICATE 3
AN 1998311482 MEDLINE
DN 98311482 PubMed ID: 9649148
TI Early stem cell transplantation for chronic lymphocytic leukaemia: a chance for cure?.
AU Dreger P; von Neuhoff N; Kuse R; Sonnen R; Glass B; Uharek L; Schoch R; Loffler H; Schmitz N
CS Second Department of Medicine, University of Kiel, Germany.
SO BRITISH JOURNAL OF CANCER, (1998 Jun) 77 (12) 2291-7.
Journal code: AV4; 0370635. ISSN: 0007-0920.
CY SCOTLAND: United Kingdom
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199807
ED Entered STN: 19980723
Last Updated on STN: 19990129
Entered Medline: 19980713

L8 ANSWER 5 OF 8 MEDLINE
AN 96426076 MEDLINE
DN 96426076 PubMed ID: 8927349
TI [Clonality analysis of B-cell lymphoproliferative disorders by means of immunoglobulin heavy chain polymerase reaction].
B-sejtes lymphoproliferativ korkepek klonalitasanak elemzese immunglobulin
nehezlanc polimeraz lancreakcio segitsegevel.
AU Laszlo T; Kelenyi G; Matolcsy A
CS Pecsi Orvostudomanyi Egyetem, Pathologiai Intezet.
SO ORVOSI HETILAP, (1996 Sep 8) 137 (36) 1963-7. Ref: 25
Journal code: OL8; 0376412. ISSN: 0030-6002.
CY Hungary
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW LITERATURE)
LA Hungarian
FS Priority Journals
EM 199611
ED Entered STN: 19961219
Last Updated on STN: 19980206
Entered Medline: 19961108

L8 ANSWER 6 OF 8 MEDLINE DUPLICATE 4
AN 96157790 MEDLINE
DN 96157790 PubMed ID: 8596150
TI Identification of Ro(SSA) 52 kDa reactive T cells in labial salivary glands from patients with Sjogren's syndrome.

AU Namekawa T; Kuroda K; Kato T; Yamamoto K; Murata H; Sakamaki T; Nishioka K; Iwamoto I; Saitoh Y; Sumida T
CS Second Department of Internal Medicine, School of Medicine, Chiba University, Japan.
SO JOURNAL OF RHEUMATOLOGY, (1995 Nov) 22 (11) 2092-9.
Journal code: JWX; 7501984. ISSN: 0315-162X.
CY Canada
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199604
ED Entered STN: 19960424
Last Updated on STN: 19960424
Entered Medline: 19960412

L8 ANSWER 7 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1993:322158 BIOSIS
DN PREV199396030508
TI Detection of immunoglobulin gene rearrangement in lymphoid malignancies of
B-cell lineage by seminested polymerase chain reaction gene amplification.
AU Liang, Raymond (1); Chan, Vivian; Chan, T. K.; Wong, Thomas; Chiu, Edmond;
Lie, Albert; Todd, David
CS (1) Univ. Dep. Med., Queen Mary Hospital Hong Kong
SO American Journal of Hematology, (1993) Vol. 43, No. 1, pp. 24-28.
ISSN: 0361-8609.
DT Article
LA English

L8 ANSWER 8 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1992:29492 BIOSIS
DN BA93:18767
TI DETECTION OF IMMUNOGLOBULIN GENE REARRANGEMENT IN ACUTE AND CHRONIC LYMPHOID LEUKEMIAS OF B-CELL LINEAGE BY POLYMERASE CHAIN REACTION GENE AMPLIFICATION.
AU LIANG R; CHAN V; CHAN T K; WONG T; CHIU E; TODD D
CS UNIV. DEP. MED., QUEEN MARY HOSPITAL, HONG KONG.
SO AM J HEMATOL, (1991) 38 (3), 189-193.
CODEN: AJHEDD. ISSN: 0361-8609.
FS BA; OLD
LA English

=> d l8 1-8 bib ab kwic

L8 ANSWER 1 OF 8 MEDLINE
AN 2001045136 MEDLINE
DN 20372241 PubMed ID: 10917573
TI Conversion to full donor chimerism following donor lymphocyte infusion is associated with disease response in patients with multiple myeloma.
AU Orsini E; Alyea E P; Chillemi A; Schlossman R; McLaughlin S; Canning C; Soiffer R J; Anderson K C; Ritz J
CS Center for Hematologic Oncology, Dana-Farber Cancer Institute, and Department of Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts 02115, USA.
NC AI29530 (NIAID)
CA78378 (NCI)
SO BIOLOGY OF BLOOD AND MARROW TRANSPLANTATION, (2000) 6 (4) 375-86.
Journal code: CUA. ISSN: 1083-8791.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English

FS Priority Journals
EM 200012
ED Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001207
AB Donor lymphocyte infusions (DLIs) have been demonstrated to induce clinical responses in patients with relapsed multiple myeloma after allogeneic bone marrow transplantation, but the immunologic mechanisms involved have not been well characterized. In patients with chronic myelocytic leukemia (CML), remissions following DLI are invariably associated with conversion to complete donor hematopoiesis, suggesting that the target antigens of this response are expressed on both normal and CML-derived hematopoietic stem cells. In the present study, we examined hematopoietic chimerism and the complexity of the T-cell receptor (TCR) repertoire in 4 patients with relapsed multiple myeloma who received infusions of donor CD4+ lymphocytes. Three of 4 patients had a clinical response that began 1 to 2 months after DLI. All 3 responding patients developed lymphocytosis at the initiation of response that was due to a 2- to 4.5-fold increase in the number of CD3+ T cells. In 1 patient, this was due primarily to increases in CD3+ and CD8+ cells; in 2 patients, to increased numbers of CD3+ and CD8+ and CD3+ and CD4+ T cells. In all responding patients, conversion to complete donor hematopoiesis occurred in the first 2 months after DLI. The single nonresponding patient remained it 100% recipient hematopoiesis. The TCR repertoire complexity was examined by **polymerase chain reaction** amplification of **complementary-determining region** 3 (CDR3) derived from 24 Vbeta gene subfamilies. In 2 patients, the initiation of myeloma response and conversion to complete donor hematopoiesis was associated with normalization of TCR complexity. Complete donor chimerism and normal TCR complexity remained stable in all patients and did not change with subsequent relapse or development of graft-versus-host disease (GVHD). Thus, conversion to full donor chimerism was temporally associated with the antimyeloma effect of DLI but not with the development of GVHD. Nevertheless, the maintenance of stable donor hematopoiesis did not prevent disease relapse and was not associated with prolonged remission. The selective relapse of myeloma cells without concomitant return of mixed hematopoietic chimerism suggests that myeloma tumor cells in some patients develop resistance to immune destruction.
AB . . . 2 months after DLI. The single nonresponding patient remained it 100% recipient hematopoiesis. The TCR repertoire complexity was examined by **polymerase chain reaction** amplification of **complementary-determining region** 3 (CDR3) derived from 24 Vbeta gene subfamilies. In 2 patients, the initiation of myeloma response and conversion to complete. . .

L8 ANSWER 2 OF 8 MEDLINE DUPLICATE 1
AN 2000032283 MEDLINE
DN 20032283 PubMed ID: 10564390
TI Blastic transformation of mantle cell lymphoma: genetic evidence for a clonal link between the two stages of the tumour.
AU Laszlo T; Matolcsy A
CS Department of Pathology, University Medical School of Pecs, Pecs, Hungary.
SO HISTOPATHOLOGY, (1999 Oct) 35 (4) 355-9.
Journal code: GB4; 7704136. ISSN: 0309-0167.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199912

ED Entered STN: 20000113
Last Updated on STN: 20000113
Entered Medline: 19991222

AB AIMS: The blastic variant of mantle cell lymphoma (MCL-BV) may develop through histological transformation of mantle cell lymphoma (MCL). However, the clonal link between the tumour cells of MCL and transformed MCL-BV has not been established at the genetic level. To investigate this link longitudinal molecular genetic studies have been performed in two cases of MCL that showed morphological transformation to MCL-BV. METHODS AND RESULTS: **Polymerase chain reaction** (PCR) and nucleotide sequence analyses of the **complementary determining region** 3 (CDR) of the immunoglobulin (Ig) heavy chain (H) gene were performed to identify clone-specific rearrangements. In both cases, nucleotide sequence analysis revealed common clone-specific IgH gene rearrangements in MCL and subsequent MCL-BV. CONCLUSIONS: These results provide genetic evidence for the common clonal origin of MCL and subsequently developed MCL-BV.

AB . . . molecular genetic studies have been performed in two cases of MCL that showed morphological transformation to MCL-BV. METHODS AND RESULTS: **Polymerase chain reaction** (PCR) and nucleotide sequence analyses of the **complementary determining region** 3 (CDR) of the immunoglobulin (Ig) heavy chain (H) gene were performed to identify clone-specific rearrangements. In both cases, nucleotide. . .

L8 ANSWER 3 OF 8 MEDLINE DUPLICATE 2
AN 1999133341 MEDLINE
DN 99133341 PubMed ID: 9934578
TI Distinct clonal origin of low-grade MALT-type and high-grade lesions of a multifocal gastric lymphoma.
CM Comment in: Histopathology. 1999 Jan;34(1):71-5
AU Matolcsy A; Nagy M; Kisfaludy N; Kelenyi G
CS Department of Pathology, University Medical School of Pecs, Hungary.
SO HISTOPATHOLOGY, (1999 Jan) 34 (1) 6-8.
Journal code: GB4; 7704136. ISSN: 0309-0167.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199904
ED Entered STN: 19990426
Last Updated on STN: 19990426
Entered Medline: 19990413

AB AIMS: Low-grade mucosa-associated lymphoid tissue (MALT) lymphoma and high-grade B-cell non-Hodgkin's lymphoma (NHL) of the stomach may occur simultaneously. To determine the clonal relationship between these tumours, we compared the immunoglobulin heavy chain gene (IgH) rearrangements of low and high-grade components of a multifocal gastric NHL. METHODS AND RESULTS: The **complementary determining region** 3 (CDR3) of the IgH gene rearrangements were **polymerase chain reaction** (PCR) amplified, cloned and sequenced. The analysis of the CDR3 sequences rearranged by tumour cells of low-grade MALT and the high-grade NHL revealed different nucleic acid sequences. CONCLUSION: These findings suggest that low-grade MALT and high-grade B-cell components of multifocal gastric NHL may represent unrelated clones.

AB . . . immunoglobulin heavy chain gene (IgH) rearrangements of low and high-grade components of a multifocal gastric NHL. METHODS AND RESULTS: The **complementary determining region** 3 (CDR3) of the IgH gene rearrangements were **polymerase chain reaction** (PCR) amplified, cloned and sequenced. The analysis of the CDR3 sequences rearranged by tumour cells of low-grade

MALT and the. . .

L8 ANSWER 4 OF 8 MEDLINE DUPLICATE 3
AN 1998311482 MEDLINE
DN 98311482 PubMed ID: 9649148
TI Early stem cell transplantation for chronic lymphocytic leukaemia: a chance for cure?.
AU Dreger P; von Neuhoff N; Kuse R; Sonnen R; Glass B; Uharek L; Schoch R; Loffler H; Schmitz N
CS Second Department of Medicine, University of Kiel, Germany.
SO BRITISH JOURNAL OF CANCER, (1998 Jun) 77 (12) 2291-7.
Journal code: AV4; 0370635. ISSN: 0007-0920.
CY SCOTLAND: United Kingdom
DT (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199807
ED Entered STN: 19980723
Last Updated on STN: 19990129
Entered Medline: 19980713
AB B-cell chronic lymphocytic leukaemia (CLL) cannot be cured by conventional therapy. To improve the prognosis of patients with CLL, we have designed a sequential treatment strategy that comprises intensive chemotherapy for mobilization of peripheral blood progenitor cells (PBPCs) and induction of minimal disease, followed by high-dose radiochemotherapy with stem cell reinfusion and post-transplant molecular monitoring by **polymerase chain reaction** (PCR) amplification of the **complementary determining region** III (CDRIII) gene. In a prospective study, we have evaluated this protocol in 18 patients with CLL, also including early stages of the disease. The median age was 49 (29-61) years; Binet stages were A, six; B, nine; and C, three. Adverse prognostic factors [high lymphocyte count and/or diffuse bone marrow (BM) infiltration] were present in 16 out of 18 patients. All patients showed a clone-specific molecular marker as demonstrated by PCR amplification of CDRIII rearrangements. For stem cell mobilization and reduction of tumour load, one to two cycles of Dexa-BEAM chemotherapy were administered, resulting in minimal disease (circulating lymphoma cells <1 x 10(9) l(-1); BM infiltration <20%; lymphomas <2 cm) in 16 out of 18 patients, including four patients who already had minimal disease before Dexa-BEAM. Stem cell harvesting was successful in 14 patients. All grafts [three BM, 11 peripheral blood (PB)] were purged from leukaemic cells using immunomagnetic methods. Thirteen patients having achieved minimal disease were reinfused with purged autologous stem cells (ASC) after preparation with total body irradiation and cyclophosphamide. Engraftment was delayed in patients receiving BM (n = 3) but prompt [neutrophils >0.5 x 10(9) l(-1) after 10 (9-13) days, platelets >20 x 10(9) l(-1) after 11 (9-214) days] in patients restored with PBPCs (n = 10). Procedure-related deaths did not occur. Although the results of CDRIII PCR suggest persistence or recurrence of the leukaemic clone in at least three cases, to date only one patient has relapsed, whereas all others survive without clinical evidence of disease with a maximum follow-up of 48 months. We conclude that sequential high-dose therapy using Dexa-BEAM and autologous stem cell transplantation is a safe and highly effective treatment for patients with CLL. However, a longer follow-up is needed to assess whether definite cures can be achieved using this strategy.
AB . . . cells (PBPCs) and induction of minimal disease, followed by high-dose radiochemotherapy with stem cell reinfusion and post-transplant molecular monitoring by **polymerase chain**

reaction (PCR) amplification of the **complementary determining region** III (CDRIII) gene. In a prospective study, we have evaluated this protocol in 18 patients with CLL, also including early. . .

L8 ANSWER 5 OF 8 MEDLINE
AN 96426076 MEDLINE
DN 96426076 PubMed ID: 8927349
TI [Clonality analysis of B-cell lymphoproliferative disorders by means of immunoglobulin heavy chain polymerase reaction].
B-sejtes lymphoproliferativ korkepek klonalitasanak elemzese immunglobulin nehezlanc polimeraz lancreakcio segitsegevel.
AU Laszlo T; Kelenyi G; Matolcsy A
CS Pecsi Orvostudomanyi Egyetem, Pathologiai Intezet.
SO ORVOSI HETILAP, (1996 Sep 8) 137 (36) 1963-7. Ref: 25
Journal code: OL8; 0376412. ISSN: 0030-6002.
CY Hungary
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW LITERATURE)
LA Hungarian
FS Priority Journals
EM 199611
ED Entered STN: 19961219
Last Updated on STN: 19980206
Entered Medline: 19961108
AB The majority of B-cell non-Hodgkin's lymphomas (NHL) exhibit a highly specific immunoglobulin heavy chain (IgH) gene rearrangement as a result of sequential assembly of their Ig variable (VH), diversity (D) and joining (JH) region segments. The analyses of Ig gene rearrangements in B cells may help to differentiate reactive lymphoproliferations from NHLs, and to identify of their B-cell origin. The aim of this study was to reveal the usefulness of polymerase chain reaction analysis of the Ig gene rearrangement in the diagnosis of B-cell NHLs, using native and formol-paraffin embedded samples. The authors analysed 67 biopsy samples of immunohistochemically characterized lymph nodes diagnosed at the Department of Pathology. University Medical School of Pecs, between 1993 and 1995, using IgH gene polymerase chain reaction. The 67 samples included 10 reactive lymphoproliferations, 47 B-cell, 5 T-cell NHLs and 5 Hodgkin's diseases. In 54 cases, fresh, unfixed, in 13 cases, formalin-fixed samples have been used. The **polymerase chain reaction** amplification of the Ig heavy chain third **complementary determining region** (CDR 3) was performed by IgVH specific sense and JH specific antisense primer pairs. The polymerase chain reaction products were evaluated by agarose gel electrophoresis containing ethidium bromide. Sixty-four % of fresh, unfixed and 54% of formol-paraffin fixed B-cell NHLs samples showed clonal Ig gene rearrangement. The applied polymerase chain reaction technique did not show clonal amplification in reactive lymphoproliferations, T-cell NHLs or Hodgkin's disease. The polymerase chain reaction amplification of the IgH gene can be a powerful tool in the diagnosis of monoclonal B-cell lymphoproliferative disorders.
AB . . . T-cell NHLs and 5 Hodgkin's diseases. In 54 cases, fresh, unfixed, in 13 cases, formalin-fixed samples have been used. The **polymerase chain reaction** amplification of the Ig heavy chain third **complementary determining region** (CDR 3) was performed by IgVH specific sense and JH specific antisense primer pairs. The polymerase chain reaction products were. . .

L8 ANSWER 6 OF 8 MEDLINE DUPLICATE 4

AN 96157790 MEDLINE
DN 96157790 PubMed ID: 8596150
TI Identification of Ro(SSA) 52 kDa reactive T cells in labial salivary glands from patients with Sjogren's syndrome.
AU Namekawa T; Kuroda K; Kato T; Yamamoto K; Murata H; Sakamaki T; Nishioka K; Iwamoto I; Saitoh Y; Sumida T
CS Second Department of Internal Medicine, School of Medicine, Chiba University, Japan.
SO JOURNAL OF RHEUMATOLOGY, (1995 Nov) 22 (11) 2092-9.
Journal code: JWX; 7501984. ISSN: 0315-162X.
CY Canada
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199604
ED Entered STN: 19960424
Last Updated on STN: 19960424
Entered Medline: 19960412
AB OBJECTIVE: To identify the self-antigens recognized by autoreactive T cells in labial salivary glands from patients with Sjogren's syndrome (SS). METHODS: T cells lines were established from infiltrating T cells in the labial salivary glands from 6 patients with SS, using interleukin 2 and phytohemagglutinin. Bulk cultured T cells and T cell lines were examined for the proliferative response to recombinant Ro(SSA) 52 kDa and SSB proteins. The usage of T cell receptor (TCR) V beta and V alpha genes from Ro(SSA) 52kDa reactive T cells was analyzed by family **polymerase chain reaction**. The sequences of **complementary determining region** 3 of TCR V beta genes were also examined. RESULTS: Three of 6 bulk cultured T cells and 4 of 16 T cell lines showed a significant proliferative response to Ro(SSA) 52 kDa protein. All T cell lines represented CD4+ alpha beta T cells by flow cytometry analysis. All 4 RO(SSA) 52 kDa reactive T cell lines utilized the V beta 2 gene and 3 lines used the V beta 13 gene, suggesting preferential usage of the V beta 2 and the V beta 13 genes in Ro(SSA) 52 kDa reactive T cells. Junctional sequences of TCR V beta genes from Ro(SSA) 52 kDa reactive T cell lines showed the conserved amino acid sequences in CDR3 region. CONCLUSION: These findings support the notion that Ro(SSA) 52 kDa is a possible autoantigen recognized by autoreactive T cells and that limited epitope is present on the Ro(SSA) 52 kDa antigen.
AB . . . T cell receptor (TCR) V beta and V alpha genes from Ro(SSA) 52kDa reactive T cells was analyzed by family **polymerase chain reaction**. The sequences of **complementary determining region** 3 of TCR V beta genes were also examined. RESULTS: Three of 6 bulk cultured T cells and 4 of. . .

L8 ANSWER 7 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1993:322158 BIOSIS
DN PREV199396030508
TI Detection of immunoglobulin gene rearrangement in lymphoid malignancies of B-cell lineage by seminested polymerase chain reaction gene amplification.
AU Liang, Raymond (1); Chan, Vivian; Chan, T. K.; Wong, Thomas; Chiu, Edmond; Lie, Albert; Todd, David
CS (1) Univ. Dep. Med., Queen Mary Hospital Hong Kong
SO American Journal of Hematology, (1993) Vol. 43, No. 1, pp. 24-28.
ISSN: 0361-8609.
DT Article
LA English
AB Seminested **polymerase chain reaction** (PCR) was used to amplify the DNA fragments of the **complementary**-

determining region 3 of the immunoglobulin (Ig) gene heavy chain from the malignant cell specimens of patients with leukemias and lymphomas of B-cell lineage. Two different pairs of primers were used sequentially. Twenty of the 27 (74%) acute lymphoblastic leukemia (ALL) patients, 14 of 19 (74%) chronic lymphocytic leukemia (CLL) patients and eight of 20 (40%) non-Hodgkin's lymphoma (NHL) patients, who had rearrangement of the Ig gene heavy chain by Southern analysis, were positive by the seminested PCR. False-negative results appeared to occur more commonly in cases of lymphoma. The PCR analysis was also less likely to be positive if one-stage PCR studies with either pair of primers were both negative. The seminested PCR technique was found to have a high sensitivity of detecting malignant cells at the level of 0.02%. The clinical application of this assay needs to be investigated further.

AB Seminested **polymerase chain reaction** (PCR) was used to amplify the DNA fragments of the **complementary-determining region** 3 of the immunoglobulin (Ig) gene heavy chain from the malignant cell specimens of patients with leukemias and lymphomas of. . .

L8 ANSWER 8 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS

AN 1992:29492 BIOSIS

DN BA93:18767

TI DETECTION OF IMMUNOGLOBULIN GENE REARRANGEMENT IN ACUTE AND CHRONIC LYMPHOID LEUKEMIAS OF B-CELL LINEAGE BY POLYMERASE CHAIN REACTION GENE AMPLIFICATION.

AU LIANG R; CHAN V; CHAN T K; WONG T; CHIU E; TODD D

CS UNIV. DEP. MED., QUEEN MARY HOSPITAL, HONG KONG.

SO AM J HEMATOL, (1991) 38 (3), 189-193.
CODEN: AJHEDD. ISSN: 0361-8609.

FS BA; OLD

LA English

AB **Polymerase chain reaction** (PCR) was used to amplify the DNA fragments of the **complementary determining region** 3 of the immunoglobulin (Ig) gene heavy chain from the leukemic cell specimens of patients with acute and chronic lymphoid leukemias of B-cell lineage. Two different pairs of primers were tested. Fourteen of the 17 (82%) cases of acute lymphoblastic leukemia (ALL), and all 15 cases (100%) of B-cell chronic lymphocytic leukemia, who had rearrangement of the Ig gene heavy chain by Southern analysis, were positive by PCR with either one or both pairs of primers. This technique was able to detect leukemic cells at the level of 0.1%. Applying it to study the remission marrow specimens following induction chemotherapy was more useful than morphology alone in predicting early relapse of the leukemia.

AB **Polymerase chain reaction** (PCR) was used to amplify the DNA fragments of the **complementary determining region** 3 of the immunoglobulin (Ig) gene heavy chain from the leukemic cell specimens of patients with acute and chronic lymphoid. . .

09/624,946

Trying 3106016892...Open

Welcome to STN International! Enter x:x
LOGINID:ssspta1806jxt
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2	Dec 17	The CA Lexicon available in the CAPLUS and CA files
NEWS	3	Feb 06	Engineering Information Encompass files have new names
NEWS	4	Feb 16	TOXLINE no longer being updated
NEWS	5	Apr 23	Search Derwent WPINDEX by chemical structure
NEWS	6	Apr 23	PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS	7	May 07	DGENE Reload
NEWS	8	Jun 20	Published patent applications (A1) are now in USPATFULL

NEWS EXPRESS	May 23 CURRENT WINDOWS VERSION IS V6.0a, CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP), AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:21:35 ON 29 JUN 2001

=> file uspat medline biosis caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.15	0.15

FILE 'USPATFULL' ENTERED AT 14:21:48 ON 29 JUN 2001
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 14:21:48 ON 29 JUN 2001

FILE 'BIOSIS' ENTERED AT 14:21:48 ON 29 JUN 2001
COPYRIGHT (C) 2001 BIOSIS(R)

FILE 'CAPLUS' ENTERED AT 14:21:48 ON 29 JUN 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

=> s (hemagglutinin or polyhistidine)(10a)elisa

L1 173 (HEMAGGLUTININ OR POLYHISTIDINE)(10A) ELISA

=> d l1 173 kwic

L1 ANSWER 173 OF 173 CAPLUS COPYRIGHT 2001 ACS
AB . . . and in ELISA. ELISA was the most sensitive technique for detecting antibodies. Antibodies to the common and strain-specific determinants of **hemagglutinin** participated in neutralization assays and **ELISA**, but only those antibodies to the common determinants were detected by hemagglutination-inhibition.

=> d l1 bib ab

L1 ANSWER 1 OF 173 USPATFULL
AN 2001:86235 USPATFULL
TI Method for producing influenza hemagglutinin multivalent vaccines
IN Smith, Gale E., Middlefield, CT, United States
Volvovitz, Franklin, New Haven, CT, United States
Wilkinson, Bethanie E., Middletown, CT, United States
Voznesensky, Andrei I., West Hartford, CT, United States
Hackett, Craig S., Wallingford, CT, United States
PA Protein Sciences Corporation, Meriden, CT, United States (U.S. corporation)
PI US 6245532 B1 20010612
AI US 1998-169027 19981009 (9)
RLI Division of Ser. No. US 1995-453848, filed on 30 May 1995, now patented,
Pat. No. US 5858368 Continuation-in-part of Ser. No. US 1993-120607, filed on 13 Sep 1993, now patented, Pat. No. US 5762939
DT Utility
EXNAM Primary Examiner: Mosher, Mary E.
LREP Frommer, Lawrence & Haug, LLP, Kowalski, Thomas J.
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1825
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of preparing a recombinant influenza vaccine using DNA technology is provided. The resulting vaccine is a multivalent, preferably trivalent, influenza vaccine based on a mixture of recombinant hemagglutinin antigens cloned from influenza viruses having epidemic potential. The recombinant hemagglutinin antigens are full length, uncleaved (HA0), glycoproteins produced from baculovirus expression vectors in cultured insect cells and purified under non-denaturing conditions. The recombinant vaccine can be developed from primary sources of influenza, for example, nasal secretions from infected individuals, rather than from virus adapted to and cultured in chicken eggs. The process for cloning influenza hemagglutinin genes from influenza A and B viruses uses specially designed oligonucleotide probes and PCR. In the preferred embodiment, the cloned HA genes are then modified by deletion of the natural hydrophobic signal peptide sequences and replacing them with a new baculovirus signal peptide. A general approach for the efficient extraction and purification of recombinant HA protein produced in insect cells is also disclosed for the purification

of rHA proteins from A sub-types and B type influenza viruses. The procedure produces substantially pure rHA which is a biologically active hemagglutinin, non-denatured, and suitable as a component in human or other animal influenza vaccines.

=> dup rem l1

PROCESSING COMPLETED FOR L1
L2 122 DUP REM L1 (51 DUPLICATES REMOVED)

=> d l2 121 kwic

L2 ANSWER 121 OF 122 BIOSIS COPYRIGHT 2001 BIOSIS
AB. . . mice, dogs, rabbits and pigs were tested for Toxoplasma antibodies by 5 serological methods [dye test (SFT), enzyme-linked immunosorbent assay (**ELISA**), complement fixation (CFT), indirect fluorescent antibody (IFAT); indirect **hemagglutinin** (IHA)]. All Toxoplasma infected animals showed Toxoplasma-specific antibodies. Sera of Hammondia infected mice and dogs showed positive serological reactions with. . .

=> d l2 bib ab

L2 ANSWER 1 OF 122 USPATFULL
AN 2001:86235 USPATFULL
TI Method for producing influenza hemagglutinin multivalent vaccines
IN Smith, Gale E., Middlefield, CT, United States
Volvovitz, Franklin, New Haven, CT, United States
Wilkinson, Bethanie E., Middletown, CT, United States
Voznesensky, Andrei I., West Hartford, CT, United States
Hackett, Craig S., Wallingford, CT, United States
PA Protein Sciences Corporation, Meriden, CT, United States (U.S. corporation)
PI US 6245532 B1 20010612
AI US 1998-169027 19981009 (9)
RLI Division of Ser. No. US 1995-453848, filed on 30 May 1995, now patented,
Pat. No. US 5858368 Continuation-in-part of Ser. No. US 1993-120607, filed on 13 Sep 1993, now patented, Pat. No. US 5762939
DT Utility
EXNAM Primary Examiner: Mosher, Mary E.
LREP Frommer, Lawrence & Haug, LLP, Kowalski, Thomas J.
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 1825
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of preparing a recombinant influenza vaccine using DNA technology is provided. The resulting vaccine is a multivalent, preferably trivalent, influenza vaccine based on a mixture of recombinant hemagglutinin antigens cloned from influenza viruses having epidemic potential. The recombinant hemagglutinin antigens are full length, uncleaved (HA0), glycoproteins produced from baculovirus expression vectors in cultured insect cells and purified under non-denaturing conditions. The recombinant vaccine can be developed from primary sources of influenza, for example, nasal secretions from infected individuals, rather than from virus adapted to and cultured in chicken eggs. The process for cloning influenza hemagglutinin genes from

influenza A and B viruses uses specially designed oligonucleotide probes
and PCR. In the preferred embodiment, the cloned HA genes are then modified by deletion of the natural hydrophobic signal peptide sequences
and replacing them with a new baculovirus signal peptide. A general approach for the efficient extraction and purification of recombinant HA
protein produced in insect cells is also disclosed for the purification of rHA proteins from A sub-types and B type influenza viruses. The procedure produces substantially pure rHA which is a biologically active
hemagglutinin, non-denatured, and suitable as a component in human or other animal influenza vaccines.

=> file biosis caplus medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	15.92	16.07

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.59	-0.59

FILE 'BIOSIS' ENTERED AT 14:26:10 ON 29 JUN 2001
COPYRIGHT (C) 2001 BIOSIS(R)

FILE 'CAPLUS' ENTERED AT 14:26:10 ON 29 JUN 2001
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 14:26:10 ON 29 JUN 2001

=> s (hemagglutinin or polyhistidine)(10a)elisa

L3 146 (HEMAGGLUTININ OR POLYHISTIDINE)(10A) ELISA

=> dup rem l3

PROCESSING COMPLETED FOR L3
L4 95 DUP REM L3 (51 DUPLICATES REMOVED)

=> d l4 95 kwic

L4 ANSWER 95 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 40
AB. . . and in ELISA. ELISA was the most sensitive technique for detecting Ab. Ab to the common and strain-specific determinants of **hemagglutinin** participated in neutralization assays and **ELISA**, but only those Ab to the common determinants were detected by hemagglutination inhibition.

=> d l4 95 bib ab

L4 ANSWER 95 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 40
AN 1980:175808 BIOSIS
DN BA69:50804
TI PURIFICATION OF ANTIBODIES TO INFLUENZA A VIRUS STRUCTURAL PROTEINS BY AFFINITY CHROMATOGRAPHY AND THEIR PARTICIPATION IN HEM AGGLUTINATION INHIBITION NEUTRALIZATION AND ENZYME LINKED IMMUNO SORBENT ASSAY.

AU WATANABE H; POLLETT M; MACKENZIE J S
CS DEP. MICROBIOL., QUEEN ELIZABETH II MED. CENT., NEDLANDS, WEST AUST. 6009,
AUST.
SO AUST J EXP BIOL MED SCI, (1979) 57 (3), 303-312.
CODEN: AJEBAK. ISSN: 0004-945X.
FS BA; OLD
LA English
AB Affinity chromatography was used to purify rabbit antibodies [Ab] to common and strain-specific antigenic determinants of hemagglutinin, to neuraminidase and to a combination of the internal proteins of influenza A
viruses. The purity of the Ab was assessed by hemagglutination inhibition,
enzyme-linked immunosorbent assay (ELISA) and competition ELISA. The Ab were examined for their participation in neutralization and hemagglutination-inhibition assay and in ELISA. ELISA was the most sensitive technique for detecting Ab. Ab to the common and strain-specific
determinants of **hemagglutinin** participated in neutralization assays and **ELISA**, but only those Ab to the common determinants were detected by hemagglutination inhibition.

=> d 14 54-90 bib ab

L4 ANSWER 54 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 27
AN 1990:331865 BIOSIS
DN BA90:39884
TI TWO DOSES OF MEASLES MUMPS RUBELLA MMR VACCINE.
AU KUNO-SAKAI H; OZAKI K; KIMURA M
CS DEP. PEDIATRICS, SCH. MED., TOKAI UNIV., ISEHARA CITY, KANAGAWA 259-11, JPN.
SO ACTA PAEDIATR JPN (OVERSEAS ED), (1989) 31 (6), 690-697.
CODEN: APDJBE. ISSN: 0374-5600.
FS BA; OLD
LA English
AB A schedule of two doses of measles mumps rubella vaccine (MMR) at an interval of six weeks was tried in children aged between 12 and 48 months.
One hundred percent seroconversion was attained in the measles HI (**hemagglutinin** inhibition) test, rubella HI test, and mumps **ELISA** test in both groups of children who received NIH (National Institute of Health, Japan) MMR lot B-30 and Kitasato MMR lot TV-1. The possibility of vaccine failure with one dose of measles vaccine is not negligible [1], and the frequency of vaccine failure increases if three vaccines are combined in the form of MMR. Our observations revealed that a
few of the children who had recieved one dose of MMR remained seronegative
with regard to measles HI antibody and rubella HI antibody, and that some of the children remained seronegative with regard to mumps ELISA antibody.
A schedule of two doses of MMR was shown to be helpful in reinforcing immunity in children who did not respond satisfactorily to one dose of MMR. We conclude that two doses of MMR are preferable to control measles,
mumps and rubella infections.

L4 ANSWER 55 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1989:224858 BIOSIS
DN BA87:116475
TI RAPID DETECTION OF BORDETELLA-PERTUSSIS BY A MONOCLONAL ANTIBODY-BASED COLONY BLOT ASSAY.

AU GUSTAFSSON B; ASKELOF P
CS DEP. BACTERIOL., KAROLINSKA INST,. S-104 01 STOCKHOLM, SWED.
SO J CLIN MICROBIOL, (1989) 27 (4), 628-631.
CODEN: JCMIDW. ISSN: 0095-1137.
FS BA; OLD
LA English
AB Monoclonal antibodies to Bordetella pertussis filamentous hemagglutinin (FHA) and lipopolysaccharide (LPS) were used in a colony blot enzyme-linked immunosorbent assay designed for rapid detection of B. pertussis. Bacterial colonies from Bordet-Gengou agar plates were blotted onto nitrocellulose filter disks, lysed by immersion in chloroform, and reacted with monoclonal antibodies. Following reaction with peroxidase-conjugated rabbit anti-mouse immunoglobulin antisera and 4-chloro-1-naphthol, blue dots representing single colonies appeared on the filters. Blotting of single B. pertussis colonies could be performed after incubation for 40 h, i.e., before the colonies were visible by eye on the agar surface. Ten of ten B. pertussis strains showed positive binding reactions with antibodies specific for B. pertussis FHA and LPS. Fourteen of fourteen B. parapertussis strains reacted with two of the FHA-specific antibodies but not with two of the LPS-specific antibodies. Strains of B. bronchiseptica showed a variable reaction pattern. No cross-reactions were observed with strains of Streptococcus mitis, S. pyogenes, S. pneumoniae, Staphylococcus aureus, Branhamella catarrhalis, or Klebsiella pneumoniae. This assay may be useful for identification of B. pertussis and B. parapertussis in suspected cases of whooping cough.

L4 ANSWER 56 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 28
AN 1989:493667 BIOSIS
DN BA88:120204
TI IMMUNOLOGICAL RESPONSE IN EXPERIMENTALLY REACTIVATED TOXOPLASMOSIS IN MICE.
AU GOYAL M; GANGULY N K; MAHAJAN R C
CS DEP. PARASITOL., POSTGRADUATE INST. MED. EDUCATION AND RES., CHANDI GARH-160012, INDIA.
SO MED MICROBIOL IMMUNOL, (1989) 178 (5), 269-278.
CODEN: MMIYAO. ISSN: 0300-8584.
FS BA; OLD
LA English
AB Both humoral and cell-mediated immune responses were studied in reactivated toxoplasma infection in mice. The infection was established by immunosuppressing chronically infected animals by thymectomy followed by irradiation. The reactivated infection was confirmed by reappearance of toxoplasma tachyzoites in peritoneal exudate. The animals survived until the 8th day post thymectomy. The percentage of splenic T lymphocytes was depressed after 4th day post thymectomy in both the uninfected thymectomised and infected immunosuppressed animals as compared to the intact uninfected controls and intact chronically infected animals. However, there was no significant change ($P > 0.05$) between the uninfected immunosuppressed control and infected immunosuppressed mice. When the infection progressed to more acute phase there was significant depression ($P < 0.01$) in the percentage of T lymphocytes in comparison to the uninfected thymectomised mice. However, there was no change in the percentage of B lymphocytes ($P > 0.05$). The function of lymphocytes as assessed by blast transformation was depressed in the presence of nonspecific mitogens, i.e. phytohemagglutinin and concanavalin A until the end of the study. The response to toxoplasma antigen was increased during early stages in the infected immunosuppressed mice (stimulation index = 4.15 .+-. 0.1 and 4.5 .+-. 0.15 on 4th and 6th day post thymectomy). On the 8th day post thymectomy, there was a suddent fall in the stimulation index (3.5 .+-. 0.11). The antitoxoplasma antibodies as detected by indirect **hemagglutinin** and fluorescence analysis and enzyme-linked immunosorbent assay (**ELISA**) tests and

toxoplasma-specific IgM antibodies as detected by ELISA test were present throughout the study period though at low levels. The significance of these findings is discussed.

L4 ANSWER 57 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1990:109609 BIOSIS
DN BA89:59100
TI EFFICACY OF INACTIVATED EPIDEMIC HEMORRHAGIC FEVER VACCINE WITH INTACT HEMAGGLUTININ ACTIVITY IN RABBITS.
AU ZHU Z; TANG H; LI Y; WENG J; FU G; YU Y
CS ZHEJIANG HEALTH ANTI-EPIDEMIC STATION, HANGZHOU.
SO CHIN J VIROL, (1989) 5 (3), 224-229.
CODEN: BIXUEA.
FS BA; OLD
LA Chinese
AB Using the Z10 strain of epidemic hemorrhagic fever (EHF) virus as seed, primary kidney cells of Meriones unguiculatus as cell subst rate, .beta.-propiolactone as inactivating agent, an inactivated EHF vaccine was prepared according to a method similar to that of inactivated Japanese B encephalitis vaccine. In this vaccine the EHFV hemagglutinin antigen in higher titres (128-1024) was detected besides the EHFV antigens detected by ELISA or RPHA method which were also present in EHF vaccine inactivated by formalin. Intramuscular immunization of rabbits with this vaccine (1ml twice) produced neutralization (N) antibody (20-160) and hemmagglutination inhibiting (HI) antibody (10-20) besides IF and RPHI antibody, while no HI and little N antibodies were produced by formalian inactivate vaccine. The above results indicate that the immunogenicity of the EHF vaccines prepared with .beta.-propriolactone and with formalin are obviously different. 23 immunized rabbits challenged with EHF virus Z5 strain at 316 or 3160 ID50 showed complete protection.

L4 ANSWER 58 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1989:279876 BIOSIS
DN BR37:4873
TI COMPARATIVE REACTOGENICITY AND IMMUNOGENICITY OF TWO DIFFERENT ACELLULAR AC VS. A CONVENTIONAL WHOLE CELL WC DTP VACCINE IN 3-6 MONTH OLDS.
AU CADOZ M; REINERT P; BEGUE P
CS INST. MERIEUX, LYON, FR.
SO JOINT MEETING OF THE AMERICAN PEDIATRIC SOCIETY AND THE SOCIETY FOR PEDIATRIC RESEARCH, WASHINGTON, D.C., USA, MAY 1-4, 1989. PEDIATR RES. (1989) 25 (4 PART 2), 174A.
CODEN: PEREBL. ISSN: 0031-3998.
DT Conference
FS BR; OLD
LA English

L4 ANSWER 59 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 29
AN 1988:504169 BIOSIS
DN BA86:124853
TI MONOCLONAL ANTIBODY-BASED SANDWICH **ELISA** FOR DETECTION OF BORDETELLA-PERTUSSIS FILAMENTOUS **HEMAGGLUTININ**.
AU GUSTAFSSON B; ASKELOF P
CS DEP. VACCINE PRODUCTION, NATL. BACTERIOL. LAB., S-105 21 STOCKHOLM.
SO J CLIN MICROBIOL, (1988) 26 (10), 2077-2082.
CODEN: JCMIDW. ISSN: 0095-1137.
FS BA; OLD
LA English
AB Hybrid cell lines producing monoclonal antibodies against Bordetella pertussis filamentous hemagglutinin (FHA) were established. The

specificity of the antibodies was ascertained by enzyme-linked immunosorbent assay (ELISA), sandwich ELISA, and sodium dodecyl sulfate-polyacrylamide gel electrophoresis followed by electroblotting. The monoclonal antibody-based sandwich ELISA was developed for detection of B. pertussis FHA. The assay had a detection limit of B. pertussis FHA in concentrations ranging from 7 to 15 ng/ml. The assay was also able to detect whole B. pertussis, Bordetella parapertussis, and Bordetella bronchiseptica bacteria. No cross-reactions were observed with strains of Branhamella catarrhalis, Neisseria meningitidis, Haemophilus influenzae, Klebsiella pneumoniae, Legionella pneumophila, Streptococcus miteor, or Streptococcus pneumoniae. The monoclonal antibodies might be useful for the detection of soluble antigens and whole bacteria in clinical samples and for studies of the immunochemical structure of B. pertussis FHA.

L4 ANSWER 60 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:441043 BIOSIS
DN BA86:93141
TI EVALUATION OF SEROLOGIC ASSAYS FOR DIAGNOSIS OF WHOOPING COUGH.
AU GRANSTROM G; WRETLIND B; SALENSTEDT C-R; GRANSTROM M
CS DEP. BACTERIOL., DANDERYD HOSP., S-182 88 DANDERYD, S-105 21 STOCKHOLM, SWEDEN.
SO J CLIN MICROBIOL, (1988) 26 (9), 1818-1823.
CODEN: JCMIDW. ISSN: 0095-1137.
FS BA; OLD
LA English
AB An enzyme-linked immunosorbent assay (ELISA) for the immunoglobulin G (IgG), IgM, and IgA response to Bordetella pertussis filamentous hemagglutinin (FHA) and pertussis toxin (PT) and a neutralization test (NT) in a microplate tissue culture assay for neutralizing antibodies to PT were evaluated in paired sera from 90 patients with culture-confirmed pertussis. Eightly patients were children (age, < 15 years), and 6 of 80 children had been immunized with three doses of diphtheria-tetanus-pertussis vaccine as infants. A significant titer rise (.gtoreq. twofold), determined by ELISA, of IgG, IgM, and IgA to FHA was recorded in 75 (83%), 28 (31%), and 47 (52%) of the patients, respectively. A significant titer rise to PT in IgG was found in 83 (92%), IgM in 29 (32%), and IgA in 44 (49%) of the patients. A significant titer rise to FHA or PT in IgG was found in 88 (98%) of the patients, in combination with a significant rise in the titer of IgA to FHA. These data were obtained in a single serum dilution of 1:500. Titrations performed later showed that the titer rise to FHA in IgG was a mean of 6.5-fold, which was significantly lower than the mean 67.0-fold rise in IgG to PT ($P < 0.001$). The mean titer of IgG to FHA in convalescent-phase serum was 270, which was also significantly lower than the mean PT titer of 2,943 ($P < 0.001$). A significant rise (.gtoreq. fourfold) in Pt titer by NT was found in 58 of 83 (70%) of the patients. The NT was significantly less sensitive than the ELISA for the determination of the IgG titer to PT ($P < 0.001$). Results showed that a 1005 (90 of 90) sensitivity in terms of titer rises was achieved in the serologic diagnosis of pertussis by ELISA in a single-point determination of the IgG and IgA responses to FHA and of the IgG response to PT.

L4 ANSWER 61 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:288443 BIOSIS
DN BA86:16710
TI SPECIFIC IMMUNOGLOBULIN A TO BORDETELLA-PERTUSSIS ANTIGENS IN MUCOSAL SECRETION FOR RAPID DIAGNOSIS OF WHOOPING COUGH.
AU GRANSTROM G; ASKELOF P; GRANSTROM M
CS DEP. INFECTIOUS DIS., DANDERYD HOSP., S-183 88 DANDERYD, SWEDEN.
SO J CLIN MICROBIOL, (1988) 26 (5), 869-874.
CODEN: JCMIDW. ISSN: 0095-1137.
FS BA; OLD
LA English

AB Specific immunoglobulin A (IgA) to Bordetella pertussis filamentous hemagglutinin (FHA) and pertussis toxin (PT) was determined in mucosal secretions by an enzyme-linked immunosorbent assay (ELISA). It took 3 to 4 h to complete the ELISA. The upper limits of normal values for age were determined in nasopharyngeal (NPH) secretions from 23 patients with viral infections and in 10 healthy adults working with pertussis patients or cultures. A significant IgA response to FHA was found in 38 of 54 (70%) and to PT in 28 of 54 (52%) NPH secretions from patients with pertussis confirmed by culture, serology, or both. The rate of positive responses to either antigen (44 of 54 [81%]) was significantly higher than that by culture alone (29 of 54 [54%]; $P < 0.01$). The rate of positive responses increased from 65% in patients with symptoms for 1 week or less to 87 to 92% in patients with symptoms for 2 or more weeks. The specific IgA response to PT was found in 100% of NPH samples from 17 unimmunized children less than 3 years of age and in only 30% of adults and immunized children greater than 3 years of age. A response to FHA was found in 65 to 73% of the NPH secretions in all age groups. Saliva samples were found to contain specific IgG to FHA and PT in all age groups, but these were of diagnostic value in 50% (11 of 22) of the adult patients. The specificity of the ELISA was 100% (10 of 10 negatives) in NPH secretions from patients with pertussis-like cough who had negative cultures and serology. The results indicate that determination of specific IgA to PT and FHA in NPH aspirates represents a sensitive and rapid diagnostic method for the detection of pertussis.

L4 ANSWER 62 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1989:125949 BIOSIS
DN BA87:60602
TI SERUM ANTIBODY RESPONSE TO FILAMENTOUS **HEMAGGLUTININ** IN PATIENTS WITH CLINICAL PERTUSSIS MEASURED BY AN **ELISA**.
AU ZACKRISSON G; ARMINJON F; KRANTZ I; LAGERGARD T; SIGURS N; TARANGER J; TROLLFORS B
CS DEP. CLINICAL BACTERIOL., UNIV. GOTEBORG, GOTEBORG, SWED.
SO EUR J CLIN MICROBIOL INFECT DIS, (1988) 7 (6), 764-770.
CODEN: EJCDEU.
FS BA; OLD
LA English
AB Titers of antibodies to filamentous hemagglutinin (FHA) were determined by enzyme-linked immunosorbent assay in acute and convalescent phase serum samples from 158 patients with clinical symptoms typical of whooping-cough. In 96 of the patients the diagnosis was verified by culture. Significant changes in serum levels of IgG, IgM and/or IgA antibodies against FHA were demonstrated in 126 patients (80%). Thus demonstration of significant changes in FHA antibody titers in serum can be used for serological diagnosis of pertussis. The results also show that high levels of IgG, IgM and/or IgA antibodies in a single serum sample suggest current pertussis infection, but if the diagnosis is based on determinations of FHA antibody titers in a single serum sample the sensitivity is low. The levels of antibody to FHA were compared with previously determined levels of antibodies to pertussis toxin. A significant antibody response against both FHA and pertussis toxin was seen in 111 patients (70%) while 147 patients (93%) developed a significant increase in antibodies against one or both antigens.

L4 ANSWER 63 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 30
AN 1988:266281 BIOSIS
DN BA86:5525
TI A COMPARISON OF LABORATORY AND CLINICAL METHODS FOR DIAGNOSING PERTUSSIS IN AN OUTBREAK IN A FACILITY FOR THE DEVELOPMENTALLY DISABLED.
AU STEKETEE R W; BURSTYN D G; WASSILAK S G F; ADKINS W N JR; POLYAK M B;

DAVIS J P; MANCLARK C R
CS DIV. FIELD SERV., CENT. DIS. CONTROL., ALTANTA, GA. REPRINTS NOT AVAILABLE.
SO J INFECT DIS, (1988) 157 (3), 441-449.
CODEN: JIDIAQ. ISSN: 0022-1899.
FS BA; OLD
LA English
AB During a pertussis outbreak in a facility for the developmentally disabled, culture- or direct fluorescent-antibody-confirmed cases were identified in 24 residents and 17 staff members; 38 (93%) were culture positive for Bordetella pertussis. An enzyme-linked immunosorbent assay (ELISA) was used to detect serum IgG and IgA to the filamentous **hemagglutinin** and lymphocytosis-promoting factor of B. pertussis. Using criteria from **ELISA** values, we identified an additional 83 residents and 28 staff members as seropositive. Among seropositive persons, antibody levels were elevated by the time of onset of respiratory symptoms and, in three of the four assays, remained elevated for 14 mo. In 44 seropositive persons tested within two weeks of onset of symptoms, 80% were culture positive, compared with 33% of 15 tested two to four weeks after onset (P = .003) and none of 15 tested more than four weeks after onset. The most specific (94%) clinical case definition identified only 41% of seropositive persons. Thus, ELISAs are important tools for individual diagnosis and epidemiological studies of pertussis.

L4 ANSWER 64 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 31
AN 1988:419300 BIOSIS
DN BA86:81912
TI LABORATORY AND EPIDEMIOLOGIC ASSESSMENT OF A RECENT INFLUENZA B OUTBREAK.
AU KING J C JR; HAUGH C J; DUPONT W D; THOMPSON J M; WRIGHT P F; EDWARDS K M
CS VANDERBILT UNIV. MED. CENTER, DEP. PEDIATRICS, T-3320 MCN, NASHVILLE, TENN. 37232.
SO J MED VIROL, (1988) 25 (3), 361-368.
CODEN: JMVIDB. ISSN: 0146-6615.
FS BA; OLD
LA English
AB A viral surveillance system in Nashville [Tennessee, USA] detected an outbreak of influenza B that occurred between January and March 1986. Paired sera from 32 individuals with culture-documented influenza B illness were tested using three serologic assays. Enzyme-linked immunosorbent assay (**ELISA**) using purified **hemagglutinin** -neuraminidase and plaque neutralization detected a seroresponse in 69% and 66% of these individuals, respectively. These assays were superior to hemagglutination inhibition, which detected a 41% seroresponse. ELISA was preferred because of cost and ease of performance. A group of 286 individuals, aged 1-65 years, was studied more extensively including serologic assessment before and after the influenza B outbreak. Historical information and viral throat cultures were obtained from those with influenza-like illness during the epidemic. An influenza B infection rate (seroresponse and/or positive culture) of 31% and illness rate (infection with flu-like symptoms during the epidemic period) of 13% was demonstrated using these methods. Pre-edimic mean serum ELISA IgGtiters were lower inthose with, versus those without,evidence of subsequent influenza B illness (1,541 vs. 4,311, P = .0026). Children .ltoreq. 15 years of age were infected ore frequently than adults (44% vs. 28%, P = .04). Fever .gtoreq. 101.degree. F was reported more frequently with influenza B than non-B illness (43% vs. 18%, P = .03). These data are useful in preparing for future epidemiologic studies of influenza B and demonstrate the value of and need for standardization of ELISA as a serologic assay for influenza B.

L4 ANSWER 65 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 32
AN 1988:199716 BIOSIS
DN BA85:101062
TI INFLUENZA VIRUS ISCOMS ANTIBODY RESPONSE IN ANIMALS.
AU SUNDQUIST B; LOVGREN K; MOREIN B
CS NATL. VET. INST., DIV. VACCINE RES., BOX 7073, S-750 07 UPPSALA, SWED.
SO VACCINE, (1988) 6 (1), 49-53.
CODEN: VACCDE. ISSN: 0264-410X.
FS BA; OLD
LA English
AB A monovalent experimental ISCOM vaccine has been prepared with the envelope glycoproteins haemagglutinin and neuraminidase of the equine virus strain A/Solvalla/79 (H3N8). In vaccination trials on BALB/c mice the ISCOM vaccine induced more than ten times higher serum antibody titres measured in ELISA than a corresponding experimental micelle vaccine. Similarly, in guinea-pigs the ISCOMs induced about tenfold higher haemagglutination inhibition (HI) and neuraminidase inhibition (NI) titers than a micelle vaccine or a conventional killed influenza whole virus vaccine. Horses vaccinated with a divalent experimental ISCOM vaccine, containing the equine strain A/Prague/56 (H7N7) and A/Solvalla/79 (H3N8), responded with ELISA antibody titers against haemagglutinin which were higher and lasted considerably longer than those in horses vaccinated with conventional whole virus vaccine. ISCOMs induced complete immunoprotection in mice vaccinated with a dose of 1 .mu.g envelope glycoproteins of the mouse pathogenic strain A/PR/8/34 (H1N1).

L4 ANSWER 66 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:199713 BIOSIS
DN BA85:101059
TI TRIAL OF A NEW ACELLULAR PERTUSSIS VACCINE IN HEALTHY ADULT VOLUNTEERS.
AU RUTTER D A; ASHWORTH L A E; DAY A; FUNNELL S; LOVELL F; ROBINSON A
CS PHLS CENTRE APPLIED MICROBIOL. AND RES., PORTON DOWN, SALISBURY, WILTS, SP4 0JG, UK.
SO VACCINE, (1988) 6 (1), 29-32.
CODEN: VACCDE. ISSN: 0264-410X.
FS BA; OLD
LA English
AB Immunogenicity and reactogenicity of a new acellular pertussis vaccine were tested in healthy adults. The vaccine contained three constituents of Bordetella pertussis; filamentous haemagglutinin, pertussis toxin (PT) and fimbriae bearing agglutinogens 2 and 3. The constituents were separately purified, treated with formaldehyde and combined with one of two aluminium adjuvants. Subjects received one dose of vaccine or an appropriate adjuvant-only preparation and were monitored for clinical responses for 7 days. Results with the two forms of vaccine were similar. Of 35 vaccinees, none had a temperature higher than 37.degree. C or a severe reaction, one had a moderate reaction (possibly due in part to intercurrent infection) and nine had mild reactions confined to localized discomfort and/or erythema or induration at the injection site. All vaccinees had good serum antibody responses to vaccine antigens measured by ELISA and for PT, by neutralization of its effects on Chinese hamster ovary cells.

L4 ANSWER 67 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1988:270151 BIOSIS
DN BA86:9395

TI AN EPIDEMIC OF NEONATAL DIARRHEA CAUSED BY ADULT DIARRHEA ROTAVIRUS ADRV AND THE BIOLOGICAL CHARACTERISTICS OF VIRUS STRAIN KMB-R85.
AU DAI G; SUN M; LIU S; DIN X; CHEN Y; WANG L; DU D; ZHAO G; SU Y; ET AL
CS DEP. VIROL., GUANZHOU ANTI-EPIDEMIC AND HYGIENE STN., INST. PREVENTIVE MED., GUANGZHOU.
SO CHIN J MICROBIOL IMMUNOL (BEIJING), (1988) 8 (1), 21-24.
CODEN: ZWMZDP. ISSN: 0254-5101.
FS BA; OLD
LA Chinese
AB This report describes for the first time that the Adult Diarrhea Rotavirus discovered in China can cause epidemic diarrhea in human neonates. An outbreak of diarrhea in newborns occurred at the nursery of the obstetrics department of Zhao Tong Regional Hospital, Yunnan Province from the middle of August to the end of November, 1985. Fifty-one percent of children were affected 2-8 days after birth. The clinical symptoms were mild, patients mainly had diarrhea and did not vomit. Rotaviruses were detected in 66.7% by RNA PAGE and in 72.7% by EM. The virus strain designated as KMB/R85 had a typical morphology which was indistinguishable from that of infantile rotaviruses by EM. The viral RNA genome was composed of 11 segments. The buoyant density in CsCl was 1.377 g/cm3. KMB/R85 strain had a **hemagglutinin** for rhesus monkey erythrocytes. By **ELISA**, IEM, and HAI, it was found that KMB/R85 strain did not possess the common group antigen shared by group A rotaviruses and was antigenically similar to the Chinese adult diarrhea rotavirus (serogroup B).

L4 ANSWER 68 OF 95 CAPLUS COPYRIGHT 2001 ACS
AN 1988:36339 CAPLUS
DN 108:36339
TI Culture media for Bordetella containing etherified D-glucose polymer derivatives and their use in manufacture of pertussis toxin and filamentous hemagglutinin
IN Quentin-Millet, Marie Jose B. J.; Arminjon, Francois; Donikian, Roupen Robert
PA Institut Merieux S. A., Fr.
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA French
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 239504	A1	19870930	EP 1987-400697	19870327
	EP 239504	B1	19910612		
	R: AT, BE, CH, DE, ES, GB, GR, IT, LI, LU, NL, SE				
	FR 2596413	A1	19871002	FR 1986-4440	19860327
	FR 2596413	B1	19880610		
	ZA 8702152	A	19871125	ZA 1987-2152	19870324
	AU 8770681	A1	19871001	AU 1987-70681	19870326
	AU 600936	B2	19900830		
	SU 1769762	A3	19921015	SU 1987-4202281	19870326
	CA 1311703	A1	19921222	CA 1987-533110	19870326
	JP 62253377	A2	19871105	JP 1987-73960	19870327
	JP 2552479	B2	19961113		
	AT 64414	E	19910615	AT 1987-400697	19870327
	ES 2000436	T3	19930716	ES 1987-400697	19870327
	US 4965205	A	19901023	US 1989-364367	19890612
PRAI	FR 1986-4440		19860327		
	EP 1987-400697		19870327		
	US 1987-31054		19870327		

AB A medium which permits better growth of Bordetella and corresponding

enhanced prodn. of pertussis toxin and filamentous hemagglutinin comprises a modified, cyclodextrin-contg. Stainer-Scholte medium to which etherified glucose polymers have been added. B pertussis, In a 30-L lab. or a 1000-L com. fermentor, was cultured in modified Stainer-Scholte medium contg. .beta.-2,6-di-O-methylcyclodextrin 1.67 and methylcellulose type A15 (mol. wt. 9,500) 0.1 g/L medium. At 40 h the industrial-scale culture was assayed for antigen: pertussis toxin 550 and **hemagglutinin** 2200 **ELISA** units/mL cell-free medium were present.

L4 ANSWER 69 OF 95 CAPLUS COPYRIGHT 2001 ACS
AN 1987:494935 CAPLUS
DN 107:94935
TI Synergistic neutralization of rubella virus by monoclonal antibodies to viral hemagglutinin
AU Gerna, Giuseppe; Revello, M. Grazia; Dovis, Mauro; Petruzzelli, Eleonora; Achilli, Giorgio; Percivalle, Elena; Torsellini, Maria
CS IRCCS Policlin. S. Matteo, Univ. Pavia, Pavia, 27100, Italy
SO J. Gen. Virol. (1987), 68(7), 2007-12
CODEN: JGVIAY; ISSN: 0022-1317
DT Journal
LA English
AB Using murine monoclonal antibodies (MAbs) to rubella virus **hemagglutinin**, 5 epitopes were identified in competitive **ELISA** binding assays: A, B, D and E by hemagglutination-inhibiting (HI) MAbs with no neutralizing (Nt) activity, and C by a MAb with neither activity. However, when HI and Nt activities were detd. in the presence of anti-mouse Igs, epitopes A, B and D were defined by both HI and Nt MAbs, whereas epitopes C and E were identified by HI MAbs without Nt activity. A synergistic Nt activity, in the absence of anti-mouse Igs, was displayed by mixts. of antibodies of different epitope groups. Anal. of mixts. of MAb pairs each belonging to a different epitope class, showed that synergistic Nt activity was elicited primarily by the group A epitope, secondarily by groups B and D and only minimally by groups C and E.

L4 ANSWER 70 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 33
AN 1987:443398 BIOSIS
DN BA84:99236
TI FIRST REPORT OF AN EPIDEMIC OF DIARRHEA IN HUMAN NEONATES INVOLVING THE NEW ROTAVIRUS AND BIOLOGICAL CHARACTERISTICS OF THE EPIDEMIC VIRUS STRAIN KMB-R85.
AU DAI G-Z; SUN M-S; LIU S-Q; DING X-F; CHEN Y-D; WANG L-C; DU D-P; ZHAO G; SU Y; ET AL
CS DEP. CENTRAL LAB., INST. MED. BIOL., CHINESE ACAD. MED. SCI., KUNMING, YUNNAN PROVINCE, PEOPLE'S REPUBLIC CHINA.
SO J MED VIROL, (1987) 22 (4), 365-374.
CODEN: JMVIDB. ISSN: 0146-6615.
FS BA; OLD
LA English
AB An outbreak of diarrhoea in neonates occurred at the nurseries of the Department of Obstetrics of Zhao Tong Regional Hospital, Yunnan Province, China, from the middle of August to the end of November, 1985. Fifty-one percent of children were affected 2-8 days after birth. The clinical symptoms were mild; patients mainly had diarrhoea and did not vomit. Rotaviruses were detected in 66.7% by RNA PAGE and in 72.7% by EM. The virus strain designated at KMB/R85 had a typical morphology which was indistinguishable from that of infantile rotaviruses by EM. The vrial RNA genome was composed of 11 segments. The buoyant density in CsCl was 1.377 g/cm3. The KMB/R85 strain possessed a **hemagglutinin** for rhesus monkey erythrocytes. By **ELISA**, IEM, and HAI, it was found that

KMB/R85 strain did not possess the common group antigen shared by group A rotaviruses and was antigenically similar to the Chinese adult diarrhoea rotavirus (serogroup B).

L4 ANSWER 71 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1987:241029 BIOSIS
DN BR32:116287
TI DEVELOPMENT OF A SOL PARTICLE IMMUNOASSAY TO DETECT ANTI-RUBELLA ANTIBODIES.
AU WIELAARD F; DENISSEN A; VAN DER VEEN L; RUTJES I
CS ORGANON SCI. DEV. GROUP, OSS, NETH.
SO 87TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR MICROBIOLOGY, ATLANTA, GEORGIA, USA, MARCH 1-6, 1987. ABSTR ANNU MEET AM SOC MICROBIOL. (1987) 87
(0), 364.
CODEN: ASMACK. ISSN: 0094-8519.
DT Conference
FS BR; OLD
LA English

L4 ANSWER 72 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1987:316451 BIOSIS
DN BA84:35958
TI ELEVATION OF HETEROPHILIC ANTIBODIES TO RABBIT ERYTHROCYTES IN HUMAN PATHOLOGIC SERA QUANTITATIVE STUDIES BY ELISA USING A GLYCOSPHINGOLIPID ANTIGEN.
AU SUZUKI E; MUKURIA C J; NAIKI M; KUROSAWA T; HANAUE J
CS DEP. BIOCHEMISTRY, FAC. VET. MED., HOKKAIDO UNIV., KITA-KU, SAPPORO, HOKKAIDO 060.
SO JPN J VET RES, (1987) 35 (1), 11-20.
CODEN: JJVRAE. ISSN: 0047-1917.
FS BA; OLD
LA English
AB Human heterophilic hemagglutinin to rabbit erythrocytes was quantitatively
determined by the hemagglutination test and enzyme linked immunosorbent assay (ELISA) using rabbit erythrocyte pentaglycosyl ceramide (CPH), Gal (.alpha. 1-3) Gal (.beta. 1-4) GlcNac (.beta. 1-3) Gal (.beta. 1-4) Glc-Cer as the antigen. The antibody level in sera from 74 Hanganutziu-Deicher (H-D) antibody-positive patients were significantly higher than those in sera from 55 healthy donors, and the correlation between the antibody levels detected by **ELISA** and **hemagglutinin** titers was significant. The antibody levels detected by **ELISA** correlated to the IgG antibody levels, while the **hemagglutinin** titers correlated to the IgM antibody levels. These results suggested that IgG levels as well as IgM levels against rabbit erythrocytes were elevated in H-D antibody-positive patients with various tumors and infectious diseases. In 4 out of 67 cancer patients collected randomly, abnormally high levels of anti-CPH IgG antibody were detected.

L4 ANSWER 73 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 34
AN 1987:11451 BIOSIS
DN BR32:1584
TI AN ANTIGEN-CONSERVING **ELISA** FOR DETECTING HUMAN ANTIBODIES TO BORDETELLA-PERTUSSIS FILAMENTOUS **HEMAGGLUTININ**.
AU VERNON S K; WIENER F P; URBANO C; LEVNER M H
CS BIOLOGICALS SECTION, MICROBIOLOGY DIV., WYETH LAB. INC., P.O. BOX 8299, PHILADELPHIA, PA 19101, USA.
SO J. Biol. Stand., (1986) 14 (2), 157-161.
CODEN: JBSTBI. ISSN: 0092-1157.
FS BR; OLD
LA English

L4 ANSWER 74 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1987:9821 BIOSIS

DN BA83:9821
TI NEUTRALIZING ACTIVITY OF THE ANTIBODIES AGAINST TWO KINDS OF ENVELOPE GLYCOPROTEINS OF SENDAI VIRUS.
AU TOZAWA H; KOMATSU H; OHKATA K; NAKAJIMA T; WATANABE M; TANAKA Y; ARIFUKU M
CS DEP. IMMUNOL., SCH. HYGIENIC SCI., KITASATO UNIV., SAGAMIHARA, KANAGAWA 228, JPN.
SO ARCH VIROL, (1986) 91 (1-2), 145-162.
CODEN: ARVIDF. ISSN: 0304-8608.
FS BA; OLD
LA English
AB Murine monoclonal antibodies against the fusion (F) and hemagglutinin-neuraminidase (HN) proteins of Sendai virus (SV) were prepared and studied on their antiviral activities, particularly on the neutralization of infectivity. On the analysis with solid phase competitive ELISA 26-anti-HN antibodies were divided into at least four groups (HN-I, -II, -III and -IV). Antigenic sites recognized by the HN-I, -II, and -III group antibodies topographically separate from each other. Sites recognized by the HN-IV group antibodies overlaps partially with ones recognized by the HN-I, HN-II and -III group antibodies. The antibodies belonging to the HN-III group highly neutralized the infectivity of SV and weakly or not all inhibit the hemagglutination (HA).
In contrast, the HN-IV group antibodies strongly inhibit HA, but weakly neutralize the infectivity. Adsorption of SV to chicken red blood cells or
L cells is inhibited by the HN-IV antibodies, but scarely by the HN-III antibodies. On the other hand, incubation with HN-III antibodies of HeLa cells that have been preadsorbed with SV at 4.degree. C, followed by culture at 37.degree. C, causes inhibition of infection, but the HN-IV antibodies do not effectively interfere with such infection. The competitive ELISA showed that 17 anti-F antibodies were divided into two groups (F-I and -II). Two antigenic sites recognized by the antibodies, however, seem to be near to each other because a certain competition is observed between the antibodies of both groups. Two of the seven antibodies belonging to theF-II group inhibit the hemolysis activity and also neutralize the infectivity of SV, but the other five F-II antibodies do not. One of the anti-F antibodies has a low HI activity, and, in competition tests, competes with one of the anti-HN antibodies (HN-IV).

L4 ANSWER 75 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 35
AN 1986:340745 BIOSIS
DN BA82:54949
TI ELECTROELUTION FOR PURIFICATION OF INFLUENZA A MATRIX PROTEIN FOR USE IN IMMUNOASSAY.
AU DONOFRIO J C; COONROD D F; KARATHANASIS V; COELINGH K V W
CS INFECTIOUS DISEASE SERVICE, VA MED. CENTER, LEXINGOTN, KY 40511.
SO J VIROL METHODS, (1986) 13 (2), 107-120.
CODEN: JVMEDH. ISSN: 0166-0934.
FS BA; OLD
LA English
AB A new preparative method for isolation of matrix protein from type A influenza virus was developed. Commercially available whole virus or split
virus vaccines were lysed, and the soluble proteins separated by electrophoresis on polyacrylamide gel. The matrix protein was located on the gel by precipitation with KCl, and recovered by electroelution. The method was technically simple and required little direct supervision during the two-step recovery process. Yields of A matrix were consistently
high, averaging 68.1% in five trials with A/Brazil/X-17. The method was also successful with other A viruses, although not with influenza B virus.
Isolated A matrix had less than 0.5% contamination by **hemagglutinin** or nucleoprotein, as determined by immunoblotting

and **ELISA**. Matrix protein was immunoreactive in Western blots and was detectable in concentrations as low as 1 ng/ml wtih ELISA. The isolated matrix provided a suitable standard for detection of matrix protein in nasal washes from patients with influenza A virus infection, and could also be used to detect anti-matrix antibodies, including monoclonal antibodies in tissue culture supernatants. The advantages of electroelution for separation of matrix protein compared to other methods were its technical simplicity, applicability to formalin-fixed influenza virus in commercially available vaccines its consistently high yield, and its very high level of purification.

L4 ANSWER 76 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 36
AN 1986:220432 BIOSIS
DN BA81:111732
TI **ELISA** DETECTION OF INFLUENZA **HEMAGGLUTININ** DEPENDS ON ITS MOLECULAR ENVIRONMENT.
AU SINYAKOV M S; VESELOV S YU; GITELMAN A K; KHARITONENKOV I G
CS INSTITUTE OF IMMUNOLOGY, MOSCOW 115478, USSR.
SO VACCINE, (1986) 4 (1), 3-4.
CODEN: VACCDE. ISSN: 0264-410X.
FS BA; OLD
LA English
AB Two ELISA techniques (indirect and sandwich) were used for detection of influenza HA in three HA-containing specimens: whole influenza virus, HA + NA, isolated HA. Adsorptive and antigenic properties of the HA were found to depend on its physicochemical state and molecular environment.

L4 ANSWER 77 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1985:388822 BIOSIS
DN BA80:58814
TI ECHINOCOCCUS-GRANULOSUS ADDITIONAL STUDIES ON SELECTED SERA FROM SERONEGATIVE PATIENTS WITH HYDATIDOSIS.
AU DOTTORINI S; SPARVOLI M
CS ISTITUTO MALATTIE INFETTIVE, POLICLINICO MONTELUCE, 06100 PERUGIA, ITALIA.
SO BOLL IST SIEROTER MILAN, (1984 (1985)) 63 (6), 513-518.
CODEN: BISMAP. ISSN: 0021-2547.
FS BA; OLD
LA English
AB Human hydatidosis-positive sera, which resulted negative in serological tests but positive on surgery, were examined with IHA [indirect **hemagglutinin**] and **ELISA** [enzyme linked immunosorbent assay], techniques using a standardized antigen and a new antigen (the 0.8 M antigen) from sheep hydatid fluid. The 0.8 M antigen was the most effective; sensitivity of any given antigen depends upon the method adopted.

L4 ANSWER 78 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1985:315434 BIOSIS
DN BA79:95430
TI ANTIBODIES TO BORDETELLA-PERTUSSIS IN HUMAN COLOSTRUM AND THEIR PROTECTIVE ACTIVITY AGAINST AEROSOL INFECTION OF MICE.
AU ODA M; COWELL J L; BURSTYN D G; THAIB S; MANCLARK C R
CS DIV. BACTERIAL PRODUCTS, CENT. DRUGS BIOL., FOOD DRUG ADM., BETHESDA, MD. 20205.
SO INFECT IMMUN, (1985) 47 (2), 441-445.
CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English
AB Colostrum samples from Indonesian mothers were assayed for antibodies which agglutinate B. pertussis and for antibodies to the filamentous hemagglutinin and the lymphocytosis-promoting factor of B. pertussis.

Agglutinins were assayed by a microtiter method, and 36 of 58 samples tested (62%) had titers .gtoreq. 1:10 (range, < 1:10 to 1:160). An enzyme-linked immunosorbent assay [**ELISA**] detected anti-filamentous **hemagglutinin** in 39 of 60 samples (65%) and anti-lymphocytosis-promoting factor in 26 of 60 samples assayed (43%). A total of 52 samples (87%) were positive for at least 1 of these antibodies. Pooled colostrum samples were separated by affinity chromatography into fractions enriched in either secretory IgA (sIgA) or IgG and examined for their ability to passively protect suckling mice from aerosol challenge with B. pertussis. Samples (160 .mu.g of protein) were given i.p. 90 min before challenge. Death, rate of gain in body weight and leukocytosis were used as indicators of illness. Colostrum containing anti-lymphocytosis-promoting factor or agglutinins was protective; colostrum lacking these but containing anti-filamentous hemagglutinin gave little protection. The sIgA-enriched and IgG-enriched fractions appeared to be equal in their ability to protect against respiratory challenge with B. pertussis.

L4 ANSWER 79 OF 95 MEDLINE
AN 86221302 MEDLINE
DN 86221302 PubMed ID: 3835079
TI Anti-pertussis toxin IgG and anti-filamentous hemagglutinin IgG production in children immunized with pertussis acellular vaccine and comparison of these titers with the sera of pertussis convalescent children.
AU Sato Y; Sato H
SO DEVELOPMENTS IN BIOLOGICAL STANDARDIZATION, (1985) 61 367-72.
Journal code: E7V; 0427140. ISSN: 0301-5149.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198607
ED Entered STN: 19900321
Last Updated on STN: 19900321
Entered Medline: 19860718
AB Serum was taken from 195 infant pertussis patients several times at appropriate intervals, and antibodies to pertussis toxin and filamentous **hemagglutinin** were evaluated by the **ELISA**. The geometric mean titers were low for both IgG antibodies at the onset of the disease, and rose to about 30 U/ml for both antibodies in the convalescent sera. All convalescent sera showed high titers of anti-PT IgG antibody. Paired serum samples were collected from 685 children before and four weeks after the second primary dose of immunization with the component vaccine. The titers were less than 1.0 and 1.8 U/ml for anti-PT and anti-FHA IgG, respectively for pre-immunization, and 22 and 66 U/ml for anti-PT and anti-FHA IgG, respectively for after immunization. When children six months of age were immunized with the component vaccine, good antibody responses were seen and no significant differences of antibody response by age were observed. There were 71 children who were immunized twice with the component vaccine and were considered to be exposed to infection by household members. Nine children out of 71 had weak or typical attacks of pertussis, and the attack rate was about 13% (9/71). It was concluded that the newly developed vaccine is suitable for children with respect to immunogenicity, and it was assumed that 20 to 30 ELISA U/ml of anti-PT and anti-FHA IgG is sufficient for protection from pertussis.

L4 ANSWER 80 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1986:427702 BIOSIS
DN BR31:93514
TI CLASS-SPECIFIC ANTIBODY RESPONSE TO LYMPHOCYTOSIS PROMOTING FACTOR AND FIMBRIAE IN PERTUSSIS.
AU VILJANEN M K; MERTSOLA J; KURONEN T; RUUSKANEN O
CS DEP. MED. MICROBIOL., UNIV. TURKU, TURKU, FINLAND.
SO INTERNATIONAL ASSOCIATION OF BIOLOGICAL STANDARDIZATION (ED.). DEVELOPMENTS IN BIOLOGICAL STANDARDIZATION, VOL. 61. PERTUSSIS; JOINT MEETING OF THE INTERNATIONAL ASSOCIATION OF BIOLOGICAL STANDARDIZATION AND
WHO, GENEVA, SWITZERLAND, SEPT. 25-27, 1984. XII+594P. S. KARGER AG: BASEL, SWITZERLAND; NEW YORK, N.Y., USA. ILLUS. PAPER. (1985 (RECD 1986)) 0 (0), 337-340.
CODEN: DVBSA3. ISSN: 0301-5149. ISBN: 3-8055-4210-0.
FS BR; OLD
LA English

L4 ANSWER 81 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1985:352606 BIOSIS
DN BA80:22598
TI ECHINOCOCCUS-GRANULOSUS DIAGNOSIS OF HYDATID DISEASE IN MAN.
AU DOTTORINI S; SPARVOLI M; BELLUCCI C; MAGNINI M
CS INST. INFECT. DIS., PERUGIA, ITALY.
SO ANN TROP MED PARASITOL, (1985) 79 (1), 43-50.
CODEN: ATMPA2. ISSN: 0003-4983.
FS BA; OLD
LA English
AB Several antigen fractions were prepared from sheep hydatid fluid scolices of E. granulosus by salting out with ammonium sulphate. Sera from subjects with hydatid disease and from uninfected controls were assayed by the IHA [indirect **hemagglutinin** assay] Latex, **ELISA** [enzyme linked immunosorbent assay] and complement fixation tests. The greatest sensitivity was given by the hydatid fluid 0.8M fraction in the IHA test. This antigen also gave good results with the ELISA technique. Antigens from sheep fertile fluid were diagnostically superior to those from scolices. The specificity was excellent for all antigens examined.

L4 ANSWER 82 OF 95 MEDLINE
AN 84186924 MEDLINE
DN 84186924 PubMed ID: 6201553
TI The reactions of monoclonal antibodies with structural proteins of mumps virus.
AU Orvell C
SO JOURNAL OF IMMUNOLOGY, (1984 May) 132 (5) 2622-9.
Journal code: IFB; 2985117R. ISSN: 0022-1767.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 198406
ED Entered STN: 19900319
Last Updated on STN: 19980206
Entered Medline: 19840601
AB Mouse hybridomas producing antibodies against structural proteins of mumps virus were established by fusion of FO or SP 2/0 myeloma cells with spleen cells from BALB/c mice immunized with purified preparations of egg-grown mumps virus. Ascites fluids collected after i.p. inoculation of mice were characterized by different serologic tests. By immune precipitation tests with [35S]methionine-labeled mumps virus polypeptides, 17 clones were found to produce antibodies against the nucleocapsid protein (NP), 11 against the polymerase (P) protein, 10 against the membrane (M) protein,

12 against the fusion (F) protein, and 24 against the **hemagglutinin**-neuraminidase (HN) protein. Competitive binding enzyme-linked immunosorbent assay (**ELISA**) tests were performed to determine the reactivity of the monoclonal antibodies with different antigenic sites of each structural component. The monoclonal antibodies directed against the NP, P, and M proteins identified a minimum of 10, 10, and 9 separate antigenic sites, respectively. The 12 clones directed against F were directed against a minimum of eight separate antigenic determinants. These antibodies did not neutralize the infectivity of the virus either in the absence or presence of anti-gamma-globulin. Only low capacity to block hemolysis (HL) activity of the virus was detected in clones directed against three of the eight antigenic sites. Based on their serologic reactivity, the 24 clones directed against the HN protein could be divided into four groups. The first group of clones could not inhibit any biologic activity of the protein. The second group consisted of two clones that blocked HL but did not block hemagglutination (HA) or neuraminidase (NA) activity. The third group, which included five clones, blocked HA, NA, and HL activity of the virus and had high neutralizing capacity. These clones were directed against three distinct antigenic sites. Two of the clones directed against one antigenic site could block NA activity only when a large substrate, fetuin, was used, but not when a small substrate, neuraminlactose, was used in the test. The fourth group included five clones that could block NA but not HA activity of the virus. These clones could neutralize the infectivity of the virus and had high capacity to block HL activity. In blocking experiments, all these antibodies reacted with one antigenic site. The reaction of all clones was tested in ELISA with four different strains of mumps virus. Each strain had unique antigenic sites. Variations were found in four, three, and three different antigenic sites of the NP, P, and HN proteins, respectively.

L4 ANSWER 83 OF 95 MEDLINE
AN 84276144 MEDLINE
DN 84276144 PubMed ID: 6431698
TI [Comparative characteristics of the biophysical properties of influenza A, B and C proteins].
Sravnitel'naia kharakteristika biofizicheskikh svoistv belkov virusov grippa A, B i C.
AU Ivanova V T; Govorkova E A; Zakstel'skaia L Ia
SO VOPROSY VIRUSOLOGII, (1984 May-Jun) 29 (3) 276-82.
Journal code: XL8; 0417337. ISSN: 0507-4088.
CY USSR
DT Journal; Article; (JOURNAL ARTICLE)
LA Russian
FS Priority Journals
EM 198409
ED Entered STN: 19900320
Last Updated on STN: 19970203
Entered Medline: 19840919
AB A comparative analysis of electrophoregrams of influenza A, B, and C virus proteins in polyacrylamide gel and in agarose was made. Separation of proteins was similar in three influenza C virus strains tested and differed from that of influenza A and B virus proteins. The possibility of preparative isolation of supercapsid and internal proteins of influenza C virus with preservation of their antigenic and immunogenic properties was demonstrated. Antisera to internal proteins and hemagglutinin of influenza C virus were prepared. Both antisera reacted in the double immunodiffusion

test and **ELISA**, and antiserum to **hemagglutinin** also in hemagglutination inhibition test.

L4 ANSWER 84 OF 95 MEDLINE
AN 84094743 MEDLINE
DN 84094743 PubMed ID: 6318185
TI Immunologic response to early and routine DTP immunization in infants.
AU Baraff L J; Leake R D; Burstyn D G; Payne T; Cody C L; Manclark C R; St Geme J W Jr
NC RE00425-14
SO PEDIATRICS, (1984 Jan) 73 (1) 37-42.
Journal code: OXV; 0376422. ISSN: 0031-4005.
CY United States
DT (CLINICAL TRIAL)
(CONTROLLED CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 198402
ED Entered STN: 19900319
Last Updated on STN: 19970203
Entered Medline: 19840214
AB The effect of early immunization, prior to discharge from the newborn nursery, on subsequent immunity as determined by enzyme-linked immunosorbent assay (**ELISA**) immunoglobulin (Ig) M and IgG antibody titers to filamentous **hemagglutinin** and lymphocytosis-promoting toxin (LPT) of Bordetella pertussis and by standard pertussis agglutinin titers was investigated. Eighteen infants received routine diphtheria-tetanus-pertussis (DTP) immunization at 2, 4, and 6 months of age; 17 other infants received routine immunization and an additional DTP immunization in the newborn nursery. Antibody was determined on samples of cord blood and whole blood obtained at 4, 6, and 9 months of age. IgM anti-filamentus hemagglutinin was significantly higher at 4 and 6 months of age in the group that received early immunization (P less than .05). There was no significant difference in IgM anti-LPT, IgG anti-filamentus hemagglutinin, IgG anti-LPT, or pertussis agglutinin antibodies. Six control infants had high cord IgG anti-LPT titers. These six infants had significantly lower antibody titers to LPT at 6 and 9 months of age when compared with control with control infants with lower cord titers. Thirteen infants in the early immunization group with lower cord IgG anti-LPT titers achieved significantly lower titers at 9 months of age than the 12 comparable infants in the control group.

L4 ANSWER 85 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 37
AN 1984:194473 BIOSIS
DN BA77:27457
TI NEUTRALIZATION OF INFLUENZA VIRUS BY NORMAL HUMAN SERA MECHANISMS INVOLVING ANTIBODY AND COMPLEMENT.
AU BEEBE D P; SCHREIBER R D; COOPER N R
CS DEPARTMENT OF IMMUNOLOGY, RESEARCH INSTITUTE OF SCRIPPS CLINIC, 10666 NORTH TORREY PINES ROAD, LA JOLLA, CALIF. 92037.
SO J IMMUNOL, (1983) 130 (3), 1317-1322.
CODEN: JOIMA3. ISSN: 0022-1767.
FS BA; OLD
LA English
AB All normal human sera examined neutralized WS/33 H1N1 influenza virus efficiently by 1 of 2 antibody-dependent mechanisms. A minority of the sera contained moderate levels of IgG antibody directed against the viral hemagglutinin that had the ability to directly neutralize the virus. The majority of sera tested contained very low levels of IgG anti-**hemagglutinin** antibody, which were detectable with a specific **ELISA** [enzyme-linked immunosorbent assay] but not by conventional

HAI [hemagglutination-inhibition] assays. Such IgG antibody was unable to directly neutralize the virus. Studies with agammaglobulinemic serum and with sera depleted of and reconstituted with complement components established essential roles for IgG and the components of the classical complement pathway through C3 for neutralization. The components of the alternative and membrane attack pathways were not needed for neutralization. As anticipated from the requirement for IgG and exclusive mediation of neutralization by the classical pathway, the virus-IgG immune complex activated purified C1. Binding of C3 and C4 to the virus was demonstrated, as was classical pathway-mediated triggering of the alternative pathway, with recruitment of properdin. The H1N1 influenza virus also directly activated the alternative complement pathway in human serum, leading to C3 and properdin deposition on the viral envelope. Such direct alternative pathway activation also required Ig. The alternative pathway alone was unable to neutralize the virus. Thus, most normal sera examined contain low levels of IgG anti-hemagglutinin antibody, which activate the classical pathway of the complement system and neutralize WS/33 influenza virus by deposition of C3 and C4 on the viral envelope.

L4 ANSWER 86 OF 95 CAPLUS COPYRIGHT 2001 ACS
AN 1983:196143 CAPLUS
DN 98:196143
TI Monoclonal antibodies to influenza A virus FM1 (H1N1) proteins require individual conditions for optimal reactivity in binding assays
AU Kammer, K.
CS Inst. Virol., Justus-Liebig-Univ., Giessen, Fed. Rep. Ger.
SO Immunology (1983), 48(4), 799-808
CODEN: IMMUAM; ISSN: 0019-2805
DT Journal
LA English
AB The phys. environment for optimal display of individual antigenic determinant sites on influenza A/FM/1/47 virus, esp. on its **hemagglutinin**, were established with monoclonal antibodies using an **ELISA**. Comparisons were made with requirements of serum-derived antibodies to form immune complexes. In treating the microtiter plates, 2 coating buffers revealed profound differences in their inherent capacities to provide antigenic reactivity; this activity became further altered when, after adsorption, the antigens were briefly exposed to either MeOH or CH2O. Ionic strength started to become restrictive on formation of immune complexes above 0.2 M NaCl. The binding of the monoclonal antibodies to the hemagglutinin was charge-dependent. The form of the hemagglutinin, located on the viral surface or as an isolated component, further modified the pH requirements for its optimal antigenic reactivity. The binding of serum-derived antibodies differed markedly from that of monoclonal antibodies and showed a dependence neither on the charge nor on the structural form of the hemagglutinin. Pretreatment of the hemagglutinin on the viral surface with small concns. (0.025-0.05%) of Triton X-100, SDS, and cetyltrimethyl ammonium bromide, strongly changes the accessibility of its determinant sites, whereas deoxycholate and octyl-.beta.-D-glucoside were not effective at the same concns. None of these detergents, however, altered the binding properties of the isolated component. Instead, some of them even improved its capacity to form immune complexes.

L4 ANSWER 87 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 38
AN 1984:186275 BIOSIS
DN BA77:19259
TI MEASUREMENT OF ANTIBODIES TO INFLUENZA VIRUS NEURAMINIDASE BY AN ENZYME LINKED IMMUNO SORBENT ASSAY ELISA.
AU CALLOW K A
CS MED. RES. COUNCIL, COMMON COLD UNIT, HARVARD HOSP., SALISBURY, WILTSHIRE SP2 8BW, ENGLAND.
SO INFECT IMMUN, (1983) 41 (2), 650-656.

CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English
AB The contribution of influenza A neuraminidase antibodies to the reaction with whole virus in an enzyme-linked immunosorbent assay (ELISA) was assessed by specific absorption of rabbit hyperimmune sera. Although measurable and independent, the effect of neuraminidase antibodies was less than that of hemagglutinin antibodies. Recombinants with an irrelevant **hemagglutinin** were used successfully as antigens in an **ELISA** test for measuring neuraminidase antibodies in rabbit hyperimmune sera; a low-cross reaction between N1 and N2 subtypes was observed. For the measurement of N2 antibody rises in human sera, ELISA was highly specific and compared favorably with 2 other methods, neuraminidase inhibition and single radial hemolysis.

L4 ANSWER 88 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1982:296136 BIOSIS
DN BA74:68616
TI SECRETORY AND SYSTEMIC IMMUNOLOGICAL RESPONSE IN CHILDREN INFECTED WITH LIVE ATTENUATED INFLUENZA A VIRUS VACCINES.
AU MURPHY B R; NELSON D L; WRIGHT P F; TIERNEY E L; PHELAN M A; CHANOCK R M
CS LAB. INFECTIOUS DISEASES, NATIONAL INSTITUTE ALLERGY INFECTIOUS DISEASES, BETHESDA, MD. 20205.
SO INFECT IMMUN, (1982) 36 (3), 1102-1108.
CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English
AB An enzyme-linked immunosorbent assay (**ELISA**) was used to measure isotype-specific antibody to purified **hemagglutinin** (HA) of influenza A virus, using serum and nasal-wash specimens from young children undergoing primary infection with live cold-adapted influenza A/Alaska/77 (H3N2) or A/Hong Kong/77 (H1N1) candidate vaccine virus. The serum antibody response followed the pattern expected for a primary viral infection. Each of 17 vaccinated children had a serum IgG HA antibody response, 16 had an IgM antibody response and 13 had an IgA antibody response. Nasal-wash HA antibody was detected in the IgA, IgM and IgG isotypes. Of the 17 vaccinated children, 14 had an IgA response, 13 had an IgM response and 9 had an IgG response. Most of the IgA and IgM HA antibody was actively secreted locally; only some of the IgG HA antibody was actively secreted into the respiratory tract. There was a good correlation between the level of nasal-wash antibodies measured by the HA-specific IgA EMSA and by a plaque neutralization assay. Intranasal vaccination of susceptible children with live, attenuated, cold-adapted influenza A viruses apparently efficiently stimulates both systemic and local antibody responses.

L4 ANSWER 89 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1983:292065 BIOSIS
DN BA76:49557
TI AN ENZYME LINKED IMMUNO SORBENT ASSAY FOR MEASUREMENT OF HETEROPHILE ANTIBODY.
AU HSU J F; EVANS A S; NIEDERMAN J C; CENABRE L C
CS YALE UNIV. SCH. MED., 333 CEDAR ST., NEW HAVEN, CT 06510.
SO YALE J BIOL MED, (1982 (RECD 1983)) 55 (5-6), 429-436.
CODEN: YJBMAU. ISSN: 0044-0086.
FS BA; OLD
LA English
AB An enzyme-linked immunosorbent assay (ELISA) test was developed to measure heterophile antibody. The microtiter test uses a bovine erythrocyte monolayer as antigen and anti-human IgM antiserum conjugated with horseradish peroxidase to measure the degree of binding of the heterophile antibody in the test serum with the erythrocytes. A single serum dilution

yields quantitative results when read in a spectrophotometer. The **ELISA** test showed a sensitivity comparable with the immune adherence **hemagglutinin** assay (IAHA) and other heterophile tests, good reproducibility and high specificity.

L4 ANSWER 90 OF 95 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1982:260505 BIOSIS
DN BA74:32985
TI DETECTION OF ANTIBODIES IN HUMAN SERUM AGAINST THE FIMBRIAL HEM AGGLUTININ
OF BORDETELLA-PERTUSSIS BY ENZYME LINKED IMMUNO SORBENT ASSAY.
AU GRANSTROM M; LINDBERG A A; ASKELOF P; HEDERSTEDT B
CS DEP. OF BACTERIOLOGY, NATIONAL BACTERIOLOGICAL LAB., S-105 21 STOCKHOLM, SWEDEN.
SO J MED MICROBIOL, (1982) 15 (1), 85-96.
CODEN: JMMIAV. ISSN: 0022-2615.
FS BA; OLD
LA English
AB Antibody responses in human sera against B. pertussis during natural infection were investigated by a microplate enzyme-linked immunosorbent assay (**ELISA**) with a purified fimbrial **hemagglutinin** preparation as antigen. Significant rises of specific IgG, IgM and IgA were demonstrated in paired sera. A secondary type of antibody response was found in most children and adults. In children, the type of response correlated with previous vaccination status; there was a primary response in unvaccinated children. A survey of antibodies in the general population showed low IgG titers in a small proportion of sera from the youngest healthy children. The titers and the number of individuals with measurable antibodies increased with age. In a limited study of the effect of vaccination, significant rises of titers were demonstrated after vaccination. The ELISA test was specific for antibodies against B. pertussis except that the test also seemed to measure antibody to B. parapertussis. A comparison between ELISA and the complement-fixation test showed a good correlation between the tests only in sera from children 1-12 yr old.

09/624,976

```
=>  s complementarity determining region#(10a)epitope(10a)detect?

L10          0 COMPLEMENTARITY DETERMINING REGION#(10A) EPITOPE(10A) DETECT?

=> COMPLEMENTARITY DETERMINING REGION# and EPITOPE and DETECT?

COMPLEMENTARITY IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s COMPLEMENTARITY DETERMINING REGION# and EPITOPE and DETECT?

L11         28 COMPLEMENTARITY DETERMINING REGION# AND EPITOPE AND DETECT?

=> s l11 and elisa

L12         12 L11 AND ELISA

=> s l12 and kit

L13          1 L12 AND KIT

=> s l12 and system

L14          7 L12 AND SYSTEM

=> s l11 and (nucleic acid#(10a)amplif?)

L15          0 L11 AND (NUCLEIC ACID#(10A) AMPLIF?)

=> d l13 bib ab kwic


L13  ANSWER 1 OF 1  BIOSIS  COPYRIGHT 2001 BIOSIS
AN   2000:339967  BIOSIS
DN   PREV200000339967
TI   The rabbit antibody repertoire as a novel source for the generation of
     therapeutic human antibodies.
AU   Rader, Christoph; Ritter, Gerd; Nathan, Sheila; Elia, Marikka; Gout,
Ivan;
     Jungbluth, Achim A.; Cohen, Leonard S.; Welt, Sydney; Old, Lloyd J.;
     Barbas, Carlos F., III (1)
CS   (1) 10550 N. Torrey Pines Rd., La Jolla, CA, 92037 USA
SO   Journal of Biological Chemistry, (May 5, 2000) Vol. 275, No. 18, pp.
     13668-13676. print.
     ISSN: 0021-9258.
DT   Article
LA   English
SL   English
AB   The rabbit antibody repertoire, which in the form of polyclonal
antibodies
     has been used in diagnostic applications for decades, would be an
     attractive source for the generation of therapeutic human antibodies. The
     humanization of rabbit antibodies, however, has not been reported. Here
we
     use phage display technology to select and humanize antibodies from
     rabbits that were immunized with human A33 antigen which is a target
     antigen for the immunotherapy of colon cancer. We first selected rabbit
```

antibodies that bind to a cell surface **epitope** of human A33 antigen with an affinity in the 1 nM range. For rabbit antibody humanization, we then used a selection strategy that combines grafting of the **complementarity determining regions** with framework fine tuning. The resulting humanized antibodies were found to retain both high specificity and affinity for human A33 antigen.

AB. . . a target antigen for the immunotherapy of colon cancer. We first selected rabbit antibodies that bind to a cell surface **epitope** of human A33 antigen with an affinity in the 1 nM range. For rabbit antibody humanization, we then used a selection strategy that combines grafting of the **complementarity determining regions** with framework fine tuning. The resulting humanized antibodies were found to retain both high specificity and affinity for human A33. . .

IT . . .
sequence; AF245503: EBI, GenBank, amino acid sequence, nucleotide sequence

IT Methods & Equipment
DNA fingerprinting: gene mapping, gene mapping method; **ELISA**: **detection** method, **detection**/labeling techniques;
Expand High Fidelity PCR System: Roche Molecular Systems, laboratory equipment; FACSscan flow cytometer: Becton Dickinson, laboratory equipment; SDS-PAGE [SDS-polyacrylamide gel electrophoresis]: analytical method, polyacrylamide gel electrophoresis, separation method; Superscript Preamplification System for FIrst Strand cDNA Synthesis **Kit**: Life Technologies, Inc., laboratory equipment; Western blot: analytical method, **detection**/labeling techniques, gene mapping; affinity chromatography: liquid chromatography, purification method; cDNA synthesis: Synthetic Techniques, synthetic method; cell culture: Cell Culture Techniques,. . . Molecular Biology Techniques and Chemical Characterization, genetic method; polymerase chain reaction: DNA amplification, DNA amplification method, in-situ recombinant gene expression **detection**, sequencing techniques; protein G HiTrap column: Amersham Pharmacia Biotech, laboratory equipment; transfection: gene expression/vector techniques, genetic method

IT Miscellaneous Descriptors

=> d l14 1-7 bib ab kwic

L14 ANSWER 1 OF 7 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2001:301838 BIOSIS
DN PREV200100301838
TI Protein quantification from complex protein mixtures using a proteomics methodology with single-cell resolution.
AU Zhang, Hong-Tao; Kacharmina, Janet E.; Miyashiro, Kevin; Greene, Mark I. (1); Eberwine, James
CS (1) Deparments of Pathology and Laboratory Medicine, Abramson Institute for Cancer Research, University of Pennsylvania, Philadelphia, PA, 19104-6082: greene@reo.med.upenn.edu, eberwine@mscf.med.upenn.edu USA
SO Proceedings of the National Academy of Sciences of the United States of America, (May 8, 2001) Vol. 98, No. 10, pp. 5497-5502. print. ISSN: 0027-8424.
DT Article
LA English
SL English
AB We have developed an extremely sensitive technique, termed immuno-**detection** amplified by T7 RNA polymerase (IDAT) that is capable of monitoring proteins, lipids, and metabolites and their modifications at the single-cell level. A double-stranded oligonucleotide containing the T7
promoter is conjugated to an antibody (Ab), and then T7 RNA polymerase is used to amplify RNA from the double-stranded oligonucleotides coupled to

the Ab in the Ab-antigen complex. By using this technique, we are able to **detect** the p185her2/neu receptor from the crude lysate of T6-17 cells at 10-13 dilution, which is 109-fold more sensitive than the conventional **ELISA** method. Single-chain Fv fragments or **complementarity determining region** peptides of the Ab also can be substituted for the Ab in IDAT. In a modified protocol, the oligonucleotide has been coupled to an Ab against a common **epitope** to create a universal **detector** species. With the linear amplification ability of T7 RNA polymerase, IDAT represents a significant improvement over immuno-PCR in terms of sensitivity and has the potential to provide a robotic platform for proteomics.

AB We have developed an extremely sensitive technique, termed immuno-**detection** amplified by T7 RNA polymerase (IDAT) that is capable of monitoring proteins, lipids, and metabolites and their modifications at the. . . from the double-stranded oligonucleotides coupled to the Ab in the Ab-antigen complex. By using this technique, we are able to **detect** the p185her2/neu receptor from the crude lysate of T6-17 cells at 10-13 dilution, which is 109-fold more sensitive than the conventional **ELISA** method. Single-chain Fv fragments or **complementarity determining region** peptides of the Ab also can be substituted for the Ab in IDAT. In a modified protocol, the oligonucleotide has been coupled to an Ab against a common **epitope** to create a universal **detector** species. With the linear amplification ability of T7 RNA polymerase, IDAT represents a significant improvement over immuno-PCR in terms of. . .

IT . . .
(Biochemistry and Molecular Biophysics); Cell Biology; Methods and Techniques

IT Parts, Structures, & Systems of Organisms
cell; pyramidal neuron: nervous **system**

IT Diseases
cancer: neoplastic disease

IT Chemicals & Biochemicals
RNA; T7 RNA polymerase; antibody; double-stranded oligonucleotide: T7 promoter; p185-her2/neu receptor;. . .

IT Methods & Equipment
ELISA: analytical method; Western blot: analytical method; immuno-**detection** amplified by T7 RNA polymerase: analytical method

L14 ANSWER 2 OF 7 BIOSIS COPYRIGHT 2001 BIOSIS

AN 2001:267868 BIOSIS

DN PREV200100267868

TI Intraspleen DNA inoculation elicits protective cellular immune responses.

AU Cano, Alberto; Fragoso, Gladis; Gevorkian, Goar; Terrazas, Luis Ignacio; Petrossian, Pavel; Govezensky, Tzipe; Sciutto, Edda; Manoutcharian, Karen (1)

CS (1) Instituto de Investigaciones Biomedicas, Universidad Nacional Autonoma de Mexico, Mexico, D.F., C.P. 04510: karman@servidor.unam.mx Mexico

SO DNA and Cell Biology, (April, 2001) Vol. 20, No. 4, pp. 215-221. print. ISSN: 1044-5498.

DT Article

LA English

SL English

AB DNA immunization or inoculation is a recent vaccination method that induces both humoral and cellular immune responses in a range of hosts. Independent of the route or site of vaccination, the transfer of antigen-presenting cells (APC) or antigens into lymphoid organs is necessary. The aim of this investigation was to test whether intraspleen (i.s.) DNA inoculation is capable of inducing a protective immune

response. We immunized mice by a single i.s. injection of a DNA construct expressing the immunoglobulin (Ig) heavy-chain variable domain (VH) in which the **complementarity-determining regions** (CDR) had been replaced by a Taenia crassiceps T-cell **epitope**. In these mice, immune reponses and protective effects elicited by the vaccine were measured. We have shown here for the first time that i.s. DNA inoculation can induce protective cellular immune responses and activate CD8+ T cells. Also, Ig VH appeared to be the minimal delivery unit of "antigenized" Ig capable of inducing T-cell activation in a lymphoid organ. The strategy of introducing T-cell epitopes into the molecular context of the VH domain in combination with i.s. DNA immunization could have important implications and applications for human immunotherapy.

AB. . . by a single i.s. injection of a DNA construct expressing the immunoglobulin (Ig) heavy-chain variable domain (VH) in which the **complementarity-determining regions** (CDR) had been replaced by a Taenia crassiceps T-cell **epitope**. In these mice, immune reponses and protective effects elicited by the vaccine were measured. We have shown here for the. . .

IT Major Concepts
Molecular Genetics (Biochemistry and Molecular Biophysics); Immune **System** (Chemical Coordination and Homeostasis); Methods and Techniques; Pharmacology

IT Parts, Structures, & Systems of Organisms
CD8-positive T cells: activation, blood and lymphatics, immune **system**; spleen: blood and lymphatics, immune **system**

IT Chemicals & Biochemicals
Taenia crassiceps T-cell **epitope**; immunoglobulin heavy-chain variable domain DNA: complementary domain determining regions

IT Methods & Equipment
ELISA: **detection** method, **detection** /labeling techniques; analysis of variance: analytical method; flow cytometry: analytical method, cytophotometry: CB, cytophotometry: CT; intraspleen DNA inoculation: vaccination method; proliferation. . .

L14 ANSWER 3 OF 7 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:540391 BIOSIS
DN PREV200000540391
TI A human and a mouse anti-idiotypic antibody specific for human T14+ anti-DNA antibodies reconstructed by phage display.
AU Leung, D. T. M.; Yam, N. W. C.; Chui, Y. L.; Wong, K. C.; Lim, P. L. (1)
CS (1) Clinical Immunology Unit, Chinese University of Hong Kong, Prince of Wales Hospital, Shatin, New Territories, Hong Kong China
SO Gene (Amsterdam), (19 September, 2000) Vol. 255, No. 2, pp. 373-380. print.
ISSN: 0378-1119.
DT Article
LA English
SL English
AB Little is known about human anti-idiotypic antibodies. Phage display methodology was used to reconstruct these antibodies from lupus patients, which recognize a subset (T14+) of anti-DNA antibodies. Antigen-specific B cells were isolated from the blood using a peptide based on a **complementarity determining region** (VHCDR3) of the prototypic T14+ antibody. cDNA fragments of the VH and VL genes prepared from the cells were expressed as phage displayed single chain Fv (scFv) fragments using the pCANTAB-5E phagemid vector. From a reactive clone obtained, the Ig genes used were identified to be VH3, D5-D3, JH4b, VKI and JK2. The heavy chain was highly mutated, especially in CDR3, which bears mutations mostly of the replacement type; this region is also unusual in being extremely long due to a D-D fusion. In contrast, a mouse hybridoma antibody, made to the same T14+ peptide and transformed as a

scFv fragment, uses a short VHCDR3 comprising five amino acids, three of which are tyrosines. Tyrosines may be important for antigen binding because two of these also exist in the human VHCDR3. The light chains of both antibodies may also contribute to the specificity of the protein, because their VL segments, including the CDRs, are highly homologous to each other.

AB. . . a subset (T14+) of anti-DNA antibodies. Antigen-specific B cells were isolated from the blood using a peptide based on a **complementarity determining region** (VHCDR3) of the prototypic T14+ antibody. cDNA fragments of the VH and VL genes prepared from the cells were expressed. . .

IT Major Concepts
Molecular Genetics (Biochemistry and Molecular Biophysics); Immune **System** (Chemical Coordination and Homeostasis); Methods and Techniques

IT Parts, Structures, & Systems of Organisms
human T14 antibody: **complementarity determining region**

IT Chemicals & Biochemicals
anti-idiotypic antibody

IT Methods & Equipment
ELISA: characterization method, **detection**/labeling techniques; phage display: **epitope** mapping, genetic method

L14 ANSWER 4 OF 7 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:339967 BIOSIS
DN PREV200000339967
TI The rabbit antibody repertoire as a novel source for the generation of therapeutic human antibodies.
AU Rader, Christoph; Ritter, Gerd; Nathan, Sheila; Elia, Marikka; Gout, Ivan; Jungbluth, Achim A.; Cohen, Leonard S.; Welt, Sydney; Old, Lloyd J.; Barbas, Carlos F., III (1)
CS (1) 10550 N. Torrey Pines Rd., La Jolla, CA, 92037 USA
SO Journal of Biological Chemistry, (May 5, 2000) Vol. 275, No. 18, pp. 13668-13676. print.
ISSN: 0021-9258.
DT Article
LA English
SL English
AB The rabbit antibody repertoire, which in the form of polyclonal antibodies has been used in diagnostic applications for decades, would be an attractive source for the generation of therapeutic human antibodies. The humanization of rabbit antibodies, however, has not been reported. Here we use phage display technology to select and humanize antibodies from rabbits that were immunized with human A33 antigen which is a target antigen for the immunotherapy of colon cancer. We first selected rabbit antibodies that bind to a cell surface **epitope** of human A33 antigen with an affinity in the 1 nM range. For rabbit antibody humanization, we then used a selection strategy that combines grafting of the **complementarity determining regions** with framework fine tuning. The resulting humanized antibodies were found to retain both high specificity and affinity for human A33 antigen.

AB. . . a target antigen for the immunotherapy of colon cancer. We first selected rabbit antibodies that bind to a cell surface **epitope** of human A33 antigen with an affinity in the 1 nM range. For rabbit antibody humanization, we then used a selection strategy that combines grafting of the **complementarity determining regions** with framework fine tuning. The resulting humanized antibodies were found to retain both high specificity and affinity for human A33. . .

IT Major Concepts
Molecular Genetics (Biochemistry and Molecular Biophysics); Methods and

Techniques
IT Diseases
colon cancer: digestive **system** disease, neoplastic disease
IT Chemicals & Biochemicals
A33 antigen; cDNA [complementary DNA]; polyclonal antibodies
IT Alternate Indexing
Colonic Neoplasms (MeSH)
IT . . .
sequence; AF245503: EBI, GenBank, amino acid sequence, nucleotide sequence
IT Methods & Equipment
DNA fingerprinting: gene mapping, gene mapping method; **ELISA**: **detection** method, **detection**/labeling techniques;
Expand High Fidelity PCR **System**: Roche Molecular Systems, laboratory equipment; FACSscan flow cytometer: Becton Dickinson, laboratory equipment; SDS-PAGE [SDS-polyacrylamide gel electrophoresis]: analytical method, polyacrylamide gel electrophoresis, separation method; Superscript Preamplification **System** for FIrst Strand cDNA Synthesis Kit: Life Technologies, Inc., laboratory equipment; Western blot: analytical method, **detection**/labeling techniques, gene mapping; affinity chromatography: liquid chromatography, purification method; cDNA synthesis: Synthetic Techniques, synthetic method; cell culture: Cell Culture Techniques,. . . Molecular Biology Techniques and Chemical Characterization, genetic method; polymerase chain reaction: DNA amplification, DNA amplification method, in-situ recombinant gene expression **detection**, sequencing techniques; protein G HiTrap column: Amersham Pharmacia Biotech, laboratory equipment; transfection:
gene expression/vector techniques, genetic method
IT Miscellaneous Descriptors

L14 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2001 BIOSIS
AN 2000:334470 BIOSIS
DN PREV200000334470
TI Binding of an antibody mimetic of the human low density lipoprotein receptor to apolipoprotein E is governed through electrostatic forces: Studies using site-directed mutagenesis and molecular modeling.
AU Raffai, Robert; Weisgraber, Karl H.; MacKenzie, Roger; Rupp, Bernhard; Rassart, Eric; Hirama, Tomoko; Innerarity, Thomas L.; Milne, Ross (1)
CS (1) Lipoprotein and Atherosclerosis Group, University of Ottawa Heart Inst., 40 Ruskin St., Ottawa, ON, K1Y 4W7 Canada
SO Journal of Biological Chemistry, (March 10, 2000) Vol. 275, No. 10, pp. 7109-7116. print.
ISSN: 0021-9258.
DT Article
LA English
SL English
AB Monoclonal antibody 2E8 is specific for an **epitope** that coincides with the binding site of the low density lipoprotein receptor (LDLR) on human apoE. Its reactivity with apoE variants resembles that of the LDLR: it binds well with apoE3 and poorly with apoE2. The heavy chain **complementarity-determining region** (CDRH) 2 of 2E8 shows homology to the ligand-binding domain of the LDLR. To define better the structural basis of the 2E8/apoE interaction and particularly the role of electrostatic interactions, we generated and characterized a panel of 2E8 variants. Replacement of acidic residues in the 2E8 CDRHs showed that Asp52, Glu53, and Asp56 are essential for high-affinity binding. Although Asp31 (CDRH1), Glu58 (CDRH2), and Asp97 (CDRH3) did not appear to be critical, the Asp97 fwdarw Ala variant acquired reactivity with apoE2. A Thr57 fwdarw Glu substitution increased affinity for both apoE3 and apoE2. The affinities of wild-type 2E8 and variants for apoE varied inversely with ionic strength, suggesting that electrostatic forces contribute to both antigen binding and isoform specificity. We propose a

model of the 2E8cntdotapoE immune complex that is based on the 2E8 and apoE crystal structures and that is consistent with the apoE-binding properties of wild-type 2E8 and its variants. Given the similarity between the LDLR and 2E8 in terms of specificity, the LDLR/ligand interaction may also have an important electrostatic component.

AB Monoclonal antibody 2E8 is specific for an **epitope** that coincides with the binding site of the low density lipoprotein receptor (LDLR) on human apoE. Its reactivity with apoE variants resembles that of the LDLR: it binds well with apoE3 and poorly with apoE2. The heavy chain **complementarity-determining region** (CDRH) 2 of 2E8 shows homology to the ligand-binding domain of the LDLR. To define better the structural basis of. . .

IT Major Concepts
Biochemistry and Molecular Biophysics; Immune **System** (Chemical Coordination and Homeostasis); Methods and Techniques

IT Chemicals & Biochemicals
amino acids; antibodies; antibody mimetics: analysis, binding studies; apolipoprotein. . .

IT Methods & Equipment
ELISA: analytical method, **detection**/labeling techniques; molecular modeling: Molecular Biology Techniques and Chemical Characterization, analytical method; site-directed mutagenesis: mutagenesis, protein engineering, synthetic method; surface plasmon. . .

L14 ANSWER 6 OF 7 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:496216 BIOSIS
DN PREV199900496216
TI Use of a peptide mimotope to guide the humanization of MRK-16, an anti-P-glycoprotein monoclonal antibody.
AU Tang, Ying; Beuerlein, Greg; Pecht, Gerlinde; Chilton, Todd; Huse, William D.; Watkins, Jeffry D. (1)
CS (1) Ixsys, Inc., San Diego, CA, 92121 USA
SO Journal of Biological Chemistry, (Sept. 24, 1999) Vol. 274, No. 39, pp. 27371-27378.
ISSN: 0021-9258.
DT Article
LA English
SL English

AB A mimotope-guided strategy for engineering antibodies directed against orphan targets or antigens that are difficult to purify was developed and used to humanize the murine MRK-16 monoclonal antibody (mAb). MRK-16 recognizes a conformational **epitope** of a 170-kDa membrane protein, termed P-glycoprotein (P-gp). Elevated expression of P-gp on tumor cells is associated with resistance to cytotoxic drugs, a major obstacle in chemotherapy. Murine MRK-16 was used to enrich and screen a phage-displayed peptide library to identify reactive mimotopes. One peptide, termed ALR1, was enriched to a greater extent than others and subsequently was expressed as a fusion protein with glutathione S-transferase. ALR1 fusion protein bound MRK-16 specifically and inhibited binding of MRK-16 to cells expressing elevated levels of P-gp. To humanize MRK-16, the murine **complementarity determining regions** were grafted onto homologous human heavy and light chain variable region frameworks. Framework residues thatdiffered between the murine MRK-16 and the homologous human templates were analyzed and subsequently, five framework positions potentially important for maintaining the specificity and affinity of MRK-16 were identified. A combinatorial library consisting of 32 variants encoding all possible combinations of murine and human residues at the five differing framework positions was expressed in a phage **system**. In the absence of purified P-gp, ALR1 fusion protein was used as surrogate antigen to screen

the antibody library to identify the framework combination that most preserved the binding activity of the mAb. On the basis of the initial screening against the mimotope four antibody variants were selected for further characterization. The binding affinity of these variants for the ALR1 fusion protein correlated with their binding to cells expressing elevated levels of P-gp. Thus, peptide mimotopes which can be identified for virtually any antibody including those that recognize conformational or carbohydrate epitopes, can serve as antigen templates for antibody engineering.

AB. . . are difficult to purify was developed and used to humanize the murine MRK-16 monoclonal antibody (mAb). MRK-16 recognizes a conformational **epitope** of a 170-kDa membrane protein, termed P-glycoprotein (P-gp). Elevated expression of P-gp on tumor cells is associated with resistance to. . . bound MRK-16 specifically and inhibited binding of MRK-16 to cells expressing elevated levels of P-gp. To humanize MRK-16, the murine **complementarity determining regions** were grafted onto homologous human heavy and light chain variable region frameworks. Framework residues thatdiffered between the murine MRK-16 and. . . encoding all possible combinations of murine and human residues at the five differing framework positions was expressed in a phage **system**. In the absence of purified P-gp, ALR1 fusion protein was used as surrogate antigen to screen the antibody library to. . .

IT . . .
method, molecular genetics/genetic engineering; protein purification: Isolation/Purification Techniques: CB, purification method; DNA sequencing: Recombinant DNA Technology, sequencing techniques, sequencing method; **ELISA**: **detection** method, **detection**/labeling techniques

L14 ANSWER 7 OF 7 BIOSIS COPYRIGHT 2001 BIOSIS
AN 1999:2009 BIOSIS
DN PREV199900002009
TI Rapid analysis of **epitope**-paratope interactions between HIV-1 and a 17-amino-acid neutralizing microantibody by electrospray ionization mass spectrometry.
AU Millar, Alan L.; Jackson, Nicholas A. C.; Dalton, Howard; Jennings, Keith R.; Levi, Michael; Wahren, Britta; Dimmock, Nigel J. (1)
CS (1) Dep. Biological Sciences, Univ. Warwick, Coventry CV4 7AL UK
SO European Journal of Biochemistry, (Nov., 1998) Vol. 258, No. 1, pp. 164-169.
ISSN: 0014-2956.
DT Article
LA English
AB Progress in therapeutic or prophylactic immune intervention in HIV-1 infections may only come about with a detailed understanding at the molecular/atomic level of how antibodies neutralize (inactivate) virus infectivity. Currently information on the molecular aspects of antibody-virus interaction comes predominantly from X-ray crystallography, a process that is dependent on the production of suitable crystals (1). NMR can also be valuable (2) but is complex and time consuming, while mass spectrometry has been limited to matrix-assisted laser-desorption ionization (MALDI) analysis of peptides eluted from the cognate antibody (3). Here, we have used electrospray ionization mass spectrometry (ESI-MS) to **detect** directly the interactions of a novel 17-amino-acid microantibody (MicroAb) that has HIV-1-inhibitory activity (4), and peptides representing the V3 regions of primary BIV-1 strains isolated from Brazil (clade B) and Africa (clade A). The MicroAb is based on the third **complementarity-determining region** of the heavy chain (CDR-H3) of a murine monoclonal IGGI (F58) specific for the V3 loop of the gp120 envelope glycoprotein of HIV- 1. ESI-MS proved to

be rapid (taking < 3 h for the entire analysis), sensitive (analytes at 2 mmol/ml), and accurate (RMM estimation to 0.01 -0.1%). With it, we showed that the MicroAb forms complexes with the V3 peptides, implying that its antiviral activity is mediated by binding directly to the virus particle. In addition, through controlled protease digestion of the V3 peptides, we concluded that the CDR-H3 MicroAb bound to RKXXXIGPGR, a region similar to the **epitope** of the whole IgG as determined by **ELISA**. We believe that the approach exemplified here will be applicable generally to the identification of groups involved in receptor-ligand interactions.

TI Rapid analysis of **epitope**-paratope interactions between HIV-1 and a 17-amino-acid neutralizing microantibody by electrospray ionization mass spectrometry.

AB. . . (MALDI) analysis of peptides eluted from the cognate antibody (3). Here, we have used electrospray ionization mass spectrometry (ESI-MS) to **detect** directly the interactions of a novel 17-amino-acid microantibody (MicroAb) that has HIV-1-inhibitory activity (4), and peptides representing the V3 regions. . . of primary BIV-1 strains isolated from Brazil (clade B) and Africa (clade A). The MicroAb is based on the third **complementarity-determining region** of the heavy chain (CDR-H3) of a murine monoclonal IGGI (F58) specific for the V3 loop of the gp120 envelope. . . protease digestion of the V3 peptides, we concluded that the CDR-H3 MicroAb bound to RKXXXIGPGR, a region similar to the **epitope** of the whole IgG as determined by **ELISA**. We believe that the approach exemplified here will be applicable generally to the identification of groups involved in receptor-ligand interactions.

IT Major Concepts
Immune **System** (Chemical Coordination and Homeostasis); Infection

IT Diseases
HIV-1 infection [human immunodeficiency virus 1 infection]: immune **system** disease, viral disease

IT Chemicals & Biochemicals
viral V3 peptides; 17-amino acid microantibody

IT Alternate Indexing
HIV Infections (MeSH)

IT Miscellaneous Descriptors
epitope-paratope interactions; receptor-ligand interactions

=> log off

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

09/674,846

WEST

Generate Collection

Search Results - Record(s) 1 through 10 of 16 returned.

☐ 1. Document ID: US 6245532 B1

L6: Entry 1 of 16 File: USPT Jun 12, 2001

US-PAT-NO: 6245532
DOCUMENT-IDENTIFIER: US 6245532 B1

TITLE: Method for producing influenza hemagglutinin multivalent vaccines

DATE-ISSUED: June 12, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smith; Gale E.	Middlefield	CT	N/A	N/A
Volvovitz; Franklin	New Haven	CT	N/A	N/A
Wilkinson; Bethanie E.	Middletown	CT	N/A	N/A
Voznesensky; Andrei I.	West Hartford	CT	N/A	N/A
Hackett; Craig S.	Wallingford	CT	N/A	N/A

US-CL-CURRENT: 435/69.8; 435/320.1, 435/348, 435/69.7, 530/350, 536/23.4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6218141 B1

L6: Entry 2 of 16 File: USPT Apr 17, 2001

US-PAT-NO: 6218141
DOCUMENT-IDENTIFIER: US 6218141 B1

TITLE: High molecular weight surface proteins of non-typeable haemophilus

DATE-ISSUED: April 17, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barenkamp; Stephen J.	Webster Grove	MO	N/A	N/A

US-CL-CURRENT: 435/69.1; 424/185.1, 424/256.1, 435/69.3, 435/71.1, 435/71.2, 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 5977336 A

L6: Entry 3 of 16 File: USPT Nov 2, 1999

US-PAT-NO: 5977336
DOCUMENT-IDENTIFIER: US 5977336 A

TITLE: High molecular weight surface proteins of non-typeable haemophilus

DATE-ISSUED: November 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barenkamp; Stephen J.	Webster Grove	MO	N/A	N/A

US-CL-CURRENT: 536/23.7; 424/256.1, 435/320.1, 530/350, 536/23.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 4. Document ID: US 5965360 A

L6: Entry 4 of 16 File: USPT Oct 12, 1999

US-PAT-NO: 5965360
DOCUMENT-IDENTIFIER: US 5965360 A

TITLE: Diagnosis of metastatic cancer by the mts-1 gene

DATE-ISSUED: October 12, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Zain; Sayeeda	Pittsford	NY	N/A	N/A
Lukanidin; Eugene	Copenhagen	N/A	N/A	DKX

US-CL-CURRENT: 435/6; 435/810, 436/64, 536/23.5, 536/24.31, 536/24.33

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 5. Document ID: US 5928651 A

L6: Entry 5 of 16 File: USPT Jul 27, 1999

US-PAT-NO: 5928651
DOCUMENT-IDENTIFIER: US 5928651 A

TITLE: Gene encoding high molecular surface protein-2 non-typeable haemophilus

DATE-ISSUED: July 27, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barenkamp; Stephen J.	Webster Grove	MO	N/A	N/A

US-CL-CURRENT: 424/256.1; 424/184.1, 435/69.1, 435/69.3, 536/22.1, 536/23.1, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 6. Document ID: US 5876733 A

L6: Entry 6 of 16 File: USPT Mar 2, 1999

US-PAT-NO: 5876733
DOCUMENT-IDENTIFIER: US 5876733 A

TITLE: High molecular weight surface proteins of non-typeable haemophilus

DATE-ISSUED: March 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barenkamp; Stephen J.	Webster Grove	MO	N/A	N/A

US-CL-CURRENT: 424/256.1; 424/185.1, 424/193.1, 424/197.11, 530/350, 536/23.1, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 7. Document ID: US 5869065 A

L6: Entry 7 of 16 File: USPT Feb 9, 1999

US-PAT-NO: 5869065
DOCUMENT-IDENTIFIER: US 5869065 A

TITLE: High molecular weight surface proteins of non-typeable haemophilus

DATE-ISSUED: February 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barenkamp; Stephen J.	Webster Grove	MO	N/A	N/A
St. Geme, III; Joseph William	St. Louis	MO	N/A	N/A

US-CL-CURRENT: 424/256.1; 424/185.1, 424/190.1, 530/350, 536/23.1, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 8. Document ID: US 5858368 A

L6: Entry 8 of 16 File: USPT Jan 12, 1999

US-PAT-NO: 5858368
DOCUMENT-IDENTIFIER: US 5858368 A

TITLE: Vaccine comprising a baculovirus produced influenza hemagglutinin protein fused to a second protein

DATE-ISSUED: January 12, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smith; Gale E.	Middlefield	CT	N/A	N/A
Volvovitz; Franklin	New Haven	CT	N/A	N/A
Wilkinson; Bethanie E.	Middletown	CT	N/A	N/A
Voznesensky; Andrei I.	West Hartford	CT	N/A	N/A
Hackett; Craig S.	Wallingford	CT	N/A	N/A

US-CL-CURRENT: 424/192.1; 424/196.11, 424/199.1, 424/210.1, 424/278.1, 424/280.1, 424/816, 435/69.3, 530/396, 530/402, 530/412, 530/416, 530/417

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 9. Document ID: US 5843686 A

L6: Entry 9 of 16 File: USPT Dec 1, 1998

US-PAT-NO: 5843686
DOCUMENT-IDENTIFIER: US 5843686 A

TITLE: Methods of diagnosing metastatic cancer with MTS-1 protein

DATE-ISSUED: December 1, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Zain; Sayeeda	Pittsford	NY	N/A	N/A
Lukanidin; Eugene	Copenhagen	N/A	N/A	DKX

US-CL-CURRENT: 435/7.23; 435/7.1, 435/7.21, 436/63, 436/64

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 10. Document ID: US 5801142 A

L6: Entry 10 of 16 File: USPT Sep 1, 1998

US-PAT-NO: 5801142
DOCUMENT-IDENTIFIER: US 5801142 A

TITLE: Human mts-1 protein

DATE-ISSUED: September 1, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Zain; Sayeeda	Pittsford	NY	N/A	N/A
Lukanidin; Eugene	Copenhagen	N/A	N/A	DKX

US-CL-CURRENT: 514/2; 514/21, 530/327, 530/328, 530/350

Generate Collection

Term	Documents
HEMAGGLUTININ.DWPI,EPAB,JPAB,USPT.	1930
HEMAGGLUTININS.DWPI,EPAB,JPAB,USPT.	140
POLYHISTIDINE.DWPI,EPAB,JPAB,USPT.	455
POLYHISTIDINES.DWPI,EPAB,JPAB,USPT.	14
ELISA.DWPI,EPAB,JPAB,USPT.	18371
ELISAS.DWPI,EPAB,JPAB,USPT.	1532
((POLYHISTIDINE OR HEMAGGLUTININ) NEAR5 ELISA).USPT,JPAB,EPAB,DWPI.	16

Display 11 Documents, starting with Document: 11

Display Format: CIT Change Format

WEST

Generate Collection

Search Results - Record(s) 11 through 16 of 16 returned.

☐ 11. Document ID: US 5798257 A

L6: Entry 11 of 16 File: USPT Aug 25, 1998

US-PAT-NO: 5798257
DOCUMENT-IDENTIFIER: US 5798257 A

TITLE: Nucleic acid encoding human MTS-1 protein

DATE-ISSUED: August 25, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Zain; Sayeeda	Pittsford	NY	N/A	N/A
Lukanidin; Eugene	Copenhagen	N/A	N/A	DKX

US-CL-CURRENT: 435/252.3; 435/254.2, 435/320.1, 435/325, 435/348, 435/419, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 12. Document ID: US 5762939 A

L6: Entry 12 of 16 File: USPT Jun 9, 1998

US-PAT-NO: 5762939
DOCUMENT-IDENTIFIER: US 5762939 A

TITLE: Method for producing influenza hemagglutinin multivalent vaccines using baculovirus

DATE-ISSUED: June 9, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Smith; Gale Eugene	Middlefield	CT	N/A	N/A
Volvovitz; Franklin	New Haven	CT	N/A	N/A
Wilkinson; Bethanie Eident	Middletown	CT	N/A	N/A
Hackett; Craig Stanway	Wallingford	CT	N/A	N/A

US-CL-CURRENT: 424/210.1; 424/209.1, 424/278.1, 424/280.1, 424/816, 530/396

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 13. Document ID: US 5603938 A

L6: Entry 13 of 16 File: USPT Feb 18, 1997

US-PAT-NO: 5603938
DOCUMENT-IDENTIFIER: US 5603938 A

TITLE: High molecular weight surface proteins of non-typeable haemophilus

DATE-ISSUED: February 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barenkamp; Stephen J.	Webster Grove	MO	N/A	N/A

US-CL-CURRENT: 424/256.1; 435/69.1, 435/69.3, 536/22.1, 536/23.1, 536/23.7, 536/24.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 14. Document ID: US 5549897 A

L6: Entry 14 of 16 File: USPT Aug 27, 1996

US-PAT-NO: 5549897
DOCUMENT-IDENTIFIER: US 5549897 A

TITLE: High molecular weight surface proteins of non-typeable haemophilus

DATE-ISSUED: August 27, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barenkamp; Stephen J.	Webster Grove	MO	N/A	N/A
St. Geme, III; Joseph W.	St. Louis	MO	N/A	N/A

US-CL-CURRENT: 424/256.1; 435/851, 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 15. Document ID: US 4921790 A

L6: Entry 15 of 16 File: USPT May 1, 1990

US-PAT-NO: 4921790
DOCUMENT-IDENTIFIER: US 4921790 A

TITLE: Tumor specific assay for CA125 ovarian cancer antigen

DATE-ISSUED: May 1, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
O'Brien; Timothy J.	Little Rock	AR	N/A	N/A

US-CL-CURRENT: 435/7.94; 435/174, 435/188, 435/7.23, 435/810, 436/501, 436/518, 436/548, 436/808, 436/813, 530/350, 530/388.85, 530/389.7, 530/391.1, 530/391.3, 530/808, 530/810

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 16. Document ID: US 4870023 A

L6: Entry 16 of 16 File: USPT Sep 26, 1989

US-PAT-NO: 4870023
DOCUMENT-IDENTIFIER: US 4870023 A

TITLE: Recombinant baculovirus occlusion bodies in vaccines and biological insecticides

DATE-ISSUED: September 26, 1989

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fraser; Malcolm J.	South Bend	IN	N/A	N/A
Rosen; Elliot D.	South Bend	IN	N/A	N/A
Ploplis; Victoria A.	South Bend	IN	N/A	N/A

US-CL-CURRENT: 435/235.1; 435/243, 435/320.1, 435/69.3, 435/69.7, 530/350, 530/820, 530/826, 536/23.1, 536/23.4, 930/10 , 930/220

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

Generate Collection

Term	Documents
HEMAGGLUTININ.DWPI,EPAB,JPAB,USPT.	1930
HEMAGGLUTININS.DWPI,EPAB,JPAB,USPT.	140
POLYHISTIDINE.DWPI,EPAB,JPAB,USPT.	455
POLYHISTIDINES.DWPI,EPAB,JPAB,USPT.	14
ELISA.DWPI,EPAB,JPAB,USPT.	18371
ELISAS.DWPI,EPAB,JPAB,USPT.	1532
((POLYHISTIDINE OR HEMAGGLUTININ) NEAR5 ELISA).USPT,JPAB,EPAB,DWPI.	16

Display 11 Documents, starting with Document: 16

Display Format: CIT Change Format

WEST

Generate Collection

L6: Entry 14 of 16 File: USPT Aug 27, 1996

DOCUMENT-IDENTIFIER: US 5549897 A
TITLE: High molecular weight surface proteins of non-typeable haemophilus

DEPR:
To assess the sharing of antigenic determinants between HMW1 and filamentous hemagglutinin, enzyme-linked immunosorbent assay (ELISA) plates (Costar, Cambridge, Mass.) were coated with 60 .mu.l of a 4-ug/ml solution of filamentous hemagglutinin in Dulbecco's phosphate-buffered saline per well for 2 h at room temperature. Wells were blocked for 1 h with 1% bovine serum albumin in Dulbecco's phosphate-buffered saline prior to addition of serum dilutions. rHMW1 antiserum was serially diluted in 0.1% Brij (Sigma, St. Louis, Mo.) in Dulbecco's phosphate-buffered saline and incubated for 3 h at room temperature. After being washed, the plates were incubated with peroxidase-conjugated goat anti-rabbit lgG antibody (Bio-Rad) for 2 h at room temperature and subsequently developed with 2,2'-azino-bis(3-ethylbenzthiazoline-6-sulfonic acid) (Sigma) at a concentration of 0.54 in mg/ml in 0.1M sodium citrate buffer, pH 4.2, containing 0.03% H.sub.2 O.sub.2. Absorbances were read on an automated ELISA reader.

DEPR:
To further explore the HMW1-filamentous hemagglutinin relationship, the ability of antiserum prepared against the HMW1-4 recombinant protein (rHMW1) to recognize purified filamentous hemagglutinin was assessed. The rHMW1 antiserum demonstrated ELISA reactivity with filamentous hemagglutinin in a dose-dependent manner. Preimmune rabbit serum had minimal reactivity in this assay. The rHMW1 antiserum also was examined in a Western blot assay and demonstrated weak but positive reactivity with purified filamentous hemagglutinin in this system also.

WEST

Generat Collection

Search Results - Record(s) 1 through 5 of 5 returned.

☐ 1. Document ID: US 6245529 B1

L10: Entry 1 of 5 File: USPT Jun 12, 2001

US-PAT-NO: 6245529
DOCUMENT-IDENTIFIER: US 6245529 B1

TITLE: Testis-specific cystatin-like protein cystatin T

DATE-ISSUED: June 12, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Holloway; James L.	Seattle	WA	N/A	N/A
Feldhaus; Andrew L.	Lynnwood	WA	N/A	N/A

US-CL-CURRENT: 435/69.2; 435/252.33, 435/320.1, 435/69.1, 530/350, 536/23.4, 536/23.5

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6242588 B1

L10: Entry 2 of 5 File: USPT Jun 5, 2001

US-PAT-NO: 6242588
DOCUMENT-IDENTIFIER: US 6242588 B1

TITLE: Testis specific glycoprotein zpep10

DATE-ISSUED: June 5, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sheppard; Paul O.	Redmond	WA	N/A	N/A
Piddington; Christopher S.	Thousand Oaks	CA	N/A	N/A
Ellsworth; Jeff L.	Seattle	WA	N/A	N/A

US-CL-CURRENT: 536/23.5; 536/1.11, 536/18.7, 536/22.1, 536/23.1, 536/23.4, 536/24.3, 536/24.31

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6235708 B1

L10: Entry 3 of 5 File: USPT May 22, 2001

US-PAT-NO: 6235708
DOCUMENT-IDENTIFIER: US 6235708 B1

TITLE: Testis-specific cystatin-like protein cystatin T

DATE-ISSUED: May 22, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Holloway; James L.	Seattle	WA	N/A	N/A
Feldhaus; Andrew L.	Lynnwood	WA	N/A	N/A

US-CL-CURRENT: 514/2; 530/300, 530/350, 536/23.4

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 4. Document ID: US 6207152 B1

L10: Entry 4 of 5 File: USPT Mar 27, 2001

US-PAT-NO: 6207152
DOCUMENT-IDENTIFIER: US 6207152 B1

TITLE: Hepatocyte growth factor receptor antagonists and uses thereof

DATE-ISSUED: March 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schwall; Ralph H.	Pacifica	CA	N/A	N/A
Tabor; Kelly H.	Hillsborough	CA	N/A	N/A

US-CL-CURRENT: 424/130.1; 424/133.1, 424/138.1, 424/141.1, 424/143.1, 424/152.1, 424/155.1, 424/156.1, 424/174.1, 435/7.1, 435/7.2, 435/7.21, 435/7.23, 530/387.1, 530/387.3, 530/388.22, 530/388.8, 530/388.85, 530/389.1 , 530/389.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 5. Document ID: US 6100076 A

L10: Entry 5 of 5 File: USPT Aug 8, 2000

US-PAT-NO: 6100076
DOCUMENT-IDENTIFIER: US 6100076 A

TITLE: O-fucosyltransferase

DATE-ISSUED: August 8, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wang; Yang	Milbrae	CA	N/A	N/A
Spellman; Michael W.	Belmont	CA	N/A	N/A

US-CL-CURRENT: 435/193

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

Generate Collection

Term	Documents
HEMAGGLUTMININ	0
HEMAGGLUTMININS	0
POLYHISTIDINE.DWPI,EPAB,JPAB,USPT.	455
POLYHISTIDINES.DWPI,EPAB,JPAB,USPT.	14
((HEMAGGLUTMININ OR POLYHISTIDINE) AND 8).USPT,JPAB,EPAB,DWPI.	5

Display 10 Documents, starting with Document: 5

Display Format: Change Format

WEST

Help | Logout | Interrupt

Main Menu | Search Form | Posting Counts | Show S Numbers | Edit S Numbers | Preferences

Search Results -

Term	Documents
HEMAGGLUTMININ	0
HEMAGGLUTMININS	0
POLYHISTIDINE.DWPI,EPAB,JPAB,USPT.	455
POLYHISTIDINES.DWPI,EPAB,JPAB,USPT.	14
((HEMAGGLUTMININ OR POLYHISTIDINE) AND 8).USPT,JPAB,EPAB,DWPI.	5

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Refine Search: `18 and (Hemagglutminin or polyhistidine)` Clear

Search History

Today's Date: 6/29/2001

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	l8 and (Hemagglutminin or polyhistidine)	5	L10
USPT,JPAB,EPAB,DWPI	l8 and universal epitope	0	L9
USPT,JPAB,EPAB,DWPI	l7 and immobiliz$	89	L8
USPT,JPAB,EPAB,DWPI	l6 and epitope$1	121	L7
USPT,JPAB,EPAB,DWPI	l5 and immuno$ and polymerase$1	147	L6
USPT,JPAB,EPAB,DWPI	l4 and system$1 and kit$1	190	L5
USPT,JPAB,EPAB,DWPI	complementary determining region$1	355	L4
USPT,JPAB,EPAB,DWPI	complementary determining region$1 near5 kit	0	L3
USPT,JPAB,EPAB,DWPI	complementary determining region$1 near5 system$	0	L2
DWPI,USPT,EPAB,JPAB	complementary determining region$1 near5 system$ near5 kit	0	L1

WEST

Generate Collection

L11: Entry 5 of 11 File: USPT Oct 17, 2000

DOCUMENT-IDENTIFIER: US 6132992 A
TITLE: Expression vectors encoding bispecific fusion proteins and methods of producing biologically active bispecific fusion proteins in a mammalian cell

BSPR:
Bispecific or bifunctional single chain antibodies have been produced in a bacterial system. However, such fusion proteins have been produced in inactive form (Haber et al., 1990). Further, the fusion proteins so produced exhibit reductions in binding affinities and/or avidities or require complicated isolation and purification procedures to recover the desired products (Haber et al., 1990; Wels et al., 1992a).

DEPR:
As used herein, a "binding domain" means a binding site which recognizes and binds the entire binding area of a target or any portion thereof. Examples include, but are not limited to, (1) a single variable region of an antibody (V.sub.L or V.sub.H); (2) two or more variable regions (e.g. V.sub.L +V.sub.H ; V.sub.L +V.sub.L ; or V.sub.H +V.sub.H) or the complementary determining region (CDR) thereof, or (3) an antigen (such as a leucocyte antigen) or a portion thereof.

DEPR:
The sequences so replaced may be cloned by the method of polymerase chain reaction (PCR). PCR may be used to produce a multiplicity of DNA sequences which can be inserted into the expression vector which in turn can transform a eucaryotic cell and thereby express the DNA sequence. Other cloning methods, e.g., ligase chain reaction (LCR), that achieve multiplication of specific sequences can also be used.

DEPR:
For example, CD28 antigen is a homodimeric glycoprotein of the immunoglobulin superfamily (Aruffo, A., Seed, B. (1987) Molecular cloning of a CD28 cDNA by a high-efficiency COS cell expression system. Proc. Natl. Acad. Sci. USA 84:8573-8577) found on most mature human T cells (Damle et al. (1983) J. Immunol. 131:2296-2300). Monoclonal antibodies (mAbs) reactive with CD28 antigen can augment T cell responses initiated by various polyclonal stimuli. A homologous molecule, CTLA4 has been identified by differential screening of a murine cytolytic-T cell cDNA library (Brunet et al. (1987) Nature 328:267-270).

DEPR:
The molecular tag may be identified by the appropriate molecule which recognizes and binds the molecular tag such as an antibody, a complementary sense or antisense molecule, an enzyme, etc. Examples of molecular tags include an F.sub.c fragment, an HIV fragment, and the hemagglutinin epitope sequence HA1 (Pati et al. (1992) Gene 114 (2):285-8).

DEPR:
Additionally, the Ig-tail used in our bispecific fusion protein is mutated in the CH2 domain (proline to serine at residue 238). This mutation ablates ADCC activity mediated by the interaction of the human IgG1 tail with Fc receptors. This should prevent "reciprocal" killing between CD3-positive T cells and Fc-receptor-bearing cell in vivo (Clark et al., 1987a). Finally, although the bispecific molecule is expressed from transient transfection of COS cells, the protein may be potentially expressed in a stable transfection system.

DEPR:

To circumvent problems encountered by others in producing a bispecific fusion protein, we adapted an existing COS cell expression system to achieve secretion of functional single chain antibody derivatives from recombinant bispecific single chain cassette DNA. Single chain antibodies were constructed by fusing the Fc domain of human IgG1 to the variable

DEPR:
Unlike bacterial expression systems where recovery of biologically active molecules is problematic, even for molecules possessing a single binding specificity, the present invention provides transient expression from COS cells which yield culture supernatants containing the expressed biologically active fusion proteins which could then be purified by conventional affinity chromatography. Interestingly, the single chain bispecific fusion protein molecules so produced exhibit properties that were distinct from the parent antibodies.

DEPR:
We chose mammalian expression of these bispecific fusion protein molecules because the recovery of biologically active molecules from bacterial expression systems is problematic, even for molecules possessing only a single binding specificity. With mammalian expression, simple, rapid production of antibody derivatives may be achieved which is important so that characterization, evaluation, and comparison between molecules is possible within a relatively short period of time.

DEPR:
Gene fusions in which individual protein domains are present on interchangeable recombinant bispecific single chain cassette DNA create the potential for generating novel combinations, making rapid exchanges, and screening different domains for their efficacy in performing a desired function. Expression of the constructs in a transient transfection system is preferable to other methods of production for the initial recombination and screening steps. Only those molecules exhibiting the desired subset of characteristics from this screening would require shuttling into a secondary expression system for large scale production, eliminating lengthy or complicated production and isolation procedures for the majority of molecules generated.

DEPR:
We set out to develop a system for rapid construction, expression, and analysis of antibody binding sites assembled into larger molecules as recombinant bispecific single chain DNA cassettes having interchangeable DNA cassettes, i.e. DNA cassettes encoding single chain variable regions or other binding domains that can be exchanged for another. The sequences of the first and second binding domains are replaceable or interchangable. Different sequences may replace existing ones.

DEPR:
In addition, the XbaI site at the 3' end of the stuffer fragment was used to insert a molecular tag or a simple stop codon flanked by BclI and XbaI restriction sites at the carboxyl terminus (FIG. 1). The molecular tags tested included an Fc fragment from human IgG1, a human immunodeficiency virus (HIV) peptide from the V3 loop of gp110, a FLAG peptide, and the constant region domain of human C-kappa. The human IgG1 sequences were isolated from the RNA of the chimeric L6 transfectoma by coupled reverse transcription (Avian myeloblastosis virus; Life Sciences, St. Petersburg, Fla.) and/or PCR reactions from the RNA of a myeloma expressing human-mouse chimeric L6. Several different mutant derivatives of the Fc domain were constructed from PCR reactions using forward primers containing the appropriate mutations in either the hinge or the CH2 region.

DEPR:
The modified expression vectors were tested by insertion and expression of the variable regions for two different antibody binding specificities, the human L6 tumor antigen and human CD3-.epsilon.. The single chain antibody derivatives bound antigen with varying avidities and affinities, depending on the molecular tag to which they were fused. The Fc domain of human IgG1 was the most successful tag at reproducing the binding characteristics of the native antibody, despite the absence of CH1 and C.kappa. domains. Several other tags were constructed and tested, but the C.kappa. (Traunecker, A., Lanzavecchia, A. M., Karjalainen, K.

(1991) Bispecific single chain molecules (Janusins) target cytotoxic lymphocytes on HIV infected cells. EMBO J. 10: 3655-3659) and FLAG peptides both failed to function reliably. The peptide RKSIRIQRGPGRAFVTIGKI (SEQ ID NO: 3) from the V3 loop of gp110 encoded by human immunodeficiency virus was also used as an affinity tail, recognized by the peptide-specific mAb 110.3. This tag gave variable results depending on the Fv to which it was fused, failing to function properly when fused to L6, but performing successfully when fused to CD3.

DEPR:
PCR reactions (in a 100 .mu.l total reaction volume) were run in Taq polymerase buffer (Stratagene, Torrey Pines, Calif. or Boehringer-Mannheim), with 20 .mu.mol each dNTP, 50-100 pmol primers, 1-10 ng template, and Taq polymerase (Stratagene or Boehringer-Mannheim). Reactions were performed using a Perkin-Elmer Cetus Thermal Cycler with a 30-cycle program, typically consisting of steps of 1 minute at 94.degree. C., 1 minute at 55.degree. C., and 1 minute at 72.degree. C. Ligation products were transformed into MC1061/p3 and colonies were screened for the appropriate insertion plasmids. Positive clones were verified by DNA sequencing and mini-transfection.

DEPR:
RNA from G19-4 cells was extracted using the rapid NP-40 lysis technique. The V.sub.L and V.sub.H sequences of the anti-CD3 hybridoma G19-4 were amplified by using established PCR methods (Orlandi, R., Gussow, D. H., Jones, P. T., Winter, G. (1989) Cloning immunoglobulin variable regions for expression by the Polymerase Chain Reaction. Proc. Nat. Acad. Sci. 86:3833-3837). First strand cDNA synthesis was performed using AMV reverse transcriptase (Life Sciences) and primers complementary to the constant regions of the heavy or light chains. First strand cDNA products were tailed with poly-G using terminal transferase (Stratagene, Torrey Pines, Calif.). PCR was then performed using 100 pmol of each primer and 1-2 .mu.l purified G-tailed cDNA gene-cleaned cDNA from the first strand synthesis. The ANCTAIL forward primer contained nonsense DNA and poly-C sequences complementary to the anchor sequence, the ANC-ER forward primer contained an EcoRI site and nonsense sequences upstream of the anchor site, and the MH.gamma.C and MCK-3 reverse primers contained sequences internal to the first-strand primer, complementary to the constant regions of the heavy and light chains, respectively. Primer sequences were as follows:

DEPR:
Cell Culture, Transfections, and Purification of Fusion Proteins: COS cells were transfected with expression plasmids as previously described (Linsley, P. S., Brady, W., Grosmaire, L., Aruffo, A., Damle, N. K., Ledbetter, J. A. (1991) Binding of the B cell activation antigen B7 to CD28 costimulates T cell proliferation and interleukin 2 mRNA accumulation. J. Exp Med. 173:721-730; Aruffo and Seed, 1987a). Plasmid DNA was added to transfection media at 1 .mu.g/ml in a total volume of 12ml/150mm plate. Spent serum free culture media from three collections of transfected COS cells was pooled and used for purifying fusion proteins containing Ig, HIV, or STOP molecular tags. Cellular debris was removed by low-speed centrifugation and supernatants were sometimes filtered through 0.2 .mu.m filters prior to purification. Media from Ig fusion transfections was applied to a column of immobilized protein A (Repligen Corp., Cambridge, Mass.) equilibrated with 0.05 M sodium citrate, pH 8.0 (Linsley et al., 1991a). For 500 ml of supernatant, 1 ml of packed bed volume protein A was used. After two applications of media, the column was washed with 100 mM potassium phosphate, pH 8.0, and bound protein was eluted with 0.05 M sodium citrate, pH3. Fractions were collected into tubes containing 1/5 volume 1 M Tris pH 8.0. Fractions containing the peak of A.sub.230 absorbing material were pooled and dialyzed against PBS before use. Protein concentration was determined using the BioRad protein

DEPR:
assay kit based on the Lowry technique.

DEPR:
For fusion proteins containing other molecular tags, affinity columns were made by immobilizing appropriate antibodies (either anti-L6 idiotype mAb 13B or anti-HIV mAb 110.3 directed against the V3 loop of gp 110) using CNBr-activated Sepharose 4B according to the instructions from Pharmacia. The affinity matrices contained approximately 5 mg mAb per ml of bed volume and the typical column size was 1.times.5 cm (4 ml). Samples were adjusted to pH7 and applied to the

appropriate immunoaffinity column that had been previously washed with 0.1 M citric acid, pH 2.2 and equilibrated in PBS, pH 7.2. The column was washed thoroughly with PBS and the bound material was eluted with 0.1 M citrate pH 3.0, followed by immediate neutralization with Tris. Purified antibody derivative was finally dialyzed into PBS and sterile filtered.

DEPR:
SDS-PAGE and Western Blotting: Acrylamide gels forming a linear 6-15% gradient with a 4% stacker were run at 225 Volts for 3 hours or overnight at 8 mAmp. Gels were immunoblotted to nitrocellulose membranes using a Western Semi-dry transfer apparatus (Ellard Instruments, Seattle, Wash.) at 130 mAmp for 1 hour. Blots were blocked with 1% nonfat milk, 0.05% NP-40 in PBS (BLOTTO, i.e., blocking buffer) for 1-2 hours. The first antibody incubation was performed with alkaline-phosphatase conjugated goat anti-human IgG (Boehringer-Mannheim) at a 1:1500 dilution in BLOTTO, or with the appropriate dilution of unconjugated murine or chimeric antibody or anti-idiotypic antibody for detection of non-Ig fusions, i.e., Sf.sub.v lacking Ig tags. In any case, blots were washed three times in BLOTTO and incubated with alkaline phosphatase conjugated goat anti mouse or anti human IgG if a second step was required. Blots were developed in Western Blue (Promega, Madison, Wis.) for 5-15 minutes, and the reaction stopped in distilled water.

DEPR:
Immunoprecipitation and western blotting with anti-p-tyr: Jurkat T cells were unstimulated (0) or stimulated with native G19-4 Mab (Ledbetter, J. A., Norris, N. A., Grossmann, A., Grosmaire, L. S., June, C. H., Ucklin, F. M., Cosand, W. L., Rabinovitch P. S. (1989) Enhanced transmembrane signalling activity of monoclonal antibody heteroconjugates suggest molecular interactions between receptors on the T cell surface. Mol. Immunol. 26:137-145) or with CD3Fv-Ig at the concentrations indicated, and were lysed in modified RIPA buffer (Kanner, S. B., Reynolds, A. B., Parsons, J. T. (1989) Immunoaffinity purification of tyrosine-phosphorylated cellular proteins. J. Immunol. Methods 120:115-124) containing phosphatase and protease inhibitors (1 mM sodium orthovanadate, 1 mM PMSF, 2 mM EGTA, 0.5% aprotinin and 10 .mu.g/ml leupeptin). Cell lysates were cleared (10 min at 14000 rpm) and immunoprecipitated with either rabbit anti-p-tyr or PLC.gamma.1 antiserum. Immune complexes were recovered with protein A-Sepharose beads (Pharmacia, Piscataway, N.J.) and washed. The proteins were separated by SDS-PAGE (8%) and were transferred to PVDF Immobilon (Millipore, Bedford, Mass.) for 2 hours at 4.degree. C. The immunoblots were blocked before addition of 0.5 .mu.g/ml of affinity purified rabbit anti-p-tyr in blocking buffer. Proteins were detected with 1 .mu.Ci/ml high specific activity .sup.125 I-labelled protein A (ICN Biomedicals, Costa Mesa, Calif.) and autoradiography.

DEPR:
COS cells are capable of expressing antibodies from recombinant bispecific single chain cassette DNA: We set out to develop a system for transient mammalian expression of antibody molecules to facilitate their rapid detection, purification, and characterization. It was important that the system be versatile enough to accommodate molecules of varying specificities and exchanges of domains to simplify the generation, testing, and comparison between different single chain bispecific antibodies. A COS cell transient expression system has been used successfully by previous workers to express soluble cell surface receptors by creating fusion proteins between the extracellular domain of the surface receptor and the heavy chain of human immunoglobulin IgG1 (Aruffo and Seed, 1987b; Linsley et al., 1991b).

DEPR:
This system was chosen as an attractive alternative to bacterial expression systems because the molecules are secreted and could be easily recovered in active form from culture supernatants. Initial experiments examined whether a COS cell transient expression system might be capable of expressing and secreting functional intact IgG molecules using cDNA rather than genomic sequences. Full length kappa and gamma cDNA cassettes encoding anti-tumor antigen L6 specificity were ligated to pCDM8 and the insertion vectors cotransfected into COS cells by the DEAE-Dextran procedure. Culture supernatants were found to contain protein levels ranging from 100-500 ng/ml with binding activity for L6 positive tumor cells, indicating that COS cells were capable of assembling and secreting native antibody from recombinant bispecific single chain cassette DNA.

DEPR:
Adaptation of mammalian expression vectors: Once the ability of COS cells to express such molecules was verified, we modified the expression vectors pCDM8 and piLNXAn to express single chain antibody molecules using interchangeable cassettes encoding individual protein domains. The vectors pCDM8 and piLNX use either the cytomegalovirus or the AMV promoter and enhancer to achieve expression of genes inserted into the polylinker/stuffer region located downstream of the control regions. This region was altered to contain two short cDNA cassettes flanking the variable region insertion site in the polylinker. FIG. 1 diagrams the vector modifications and is a schematic view of the vector modifications and the configuration of variable regions for expressed single chain molecules. A HindIII-SaII fragment containing the leader peptide from the L6 kappa light chain variable region was inserted at the 5' end of the polylinker to achieve secretion of the molecules fused to it. A BclI-XbaI fragment encoding the hinge, CH2, and CH3 domains of human IgG1, i.e., a molecular tag, was fused in frame at the 3' end of the polylinker to facilitate detection and purification of molecules with various specificities. Single chain antibody cassette DNA encoding the variable regions of the heavy and light chains were connected to one another by a short peptide linker and inserted as SaII-BcII fragments (other compatible ends were sometimes used) between these two short flanking cassettes so that a single open reading frame was formed. We have thereby adapted existing mammalian expression vectors to achieve efficient expression of CDNA cassettes encoding single chain antibody molecules (SCA) of any specificity. The system permits the rapid expression, purification, screening, and alteration of fusion proteins so that cassettes encoding different molecular tags, linkers, and binding specificities may be compared for their relative effectiveness in expression of functional soluble molecules.

DEPR:
Construction and expression of single chain monospecific L6F.sub.v -Ig, CD3 F.sub.v -Ig, and bispecific CD3-L6Ig antibody derivatives: Two different binding specificities were used as models to test the adapted single chain antibody expression system. The variable regions for the heavy and light chains of antibodies directed against the L6 tumor antigen and the CD3 T cell surface receptor were isolated as described in Materials and Methods.

DEPR:
The V.sub.L -V.sub.H fusion cassette was inserted into the adapted vector so that a single open reading frame was created including the anti-L6 light chain signal peptide, the variable region fusion encoding the antibody binding specificity, and the human IgG1 Fc domain. The CD3-L6 bispecific fusion cassette was created by fusing the CD3 and L6 fusion cassettes via a short helical peptide linker, and inserted as for the monospecific constructs. The molecular tag utilized in initial tests of the expression system was a mutant derivative of human Fc in which the hinge disulfides were changed to serines to reduce or eliminate intrachain disulfide bonding. These single chain constructs were transfected individually into COS cells and the fusion proteins purified from culture supernatants by affinity chromatography on immobilized protein A.

DEPR:
The Sfv for L6 contains a STOP codon after the L6 V.sub.L -V.sub.H fusion cassette rather than any other molecular tag peptide sequences. Each of these molecules was constructed, transfected into COS cells, and expressed proteins purified either over protein A sepharose or an immobilized L6 anti-idiotype antibody column. Fusion proteins were compared to native chimeric L6 antibody and Fab' derivatives in saturation and inhibition binding analyses (FIGS. 4C-D). The L6 Fc mutants generated saturation curves very similar to those of native antibody (FIG. 4C), while the Sfv fusion protein bound poorly (FIG. 4B). Inhibition studies were performed by incubating increasing amounts of the test antibody with tumor cells prior to addition of FITC conjugated chimeric L6. Again we observed similar curves for all the -Ig fusions and chimeric antibody (FIG. 4D), with the Sfv and the Fab' exhibiting reduced ability to inhibit binding of native antibody (FIG. 4C). Despite the failure to compete with or inhibit the binding of native antibody, the Sfv fusion protein performed slightly better than the chemically prepared L6 Fab molecule in this experiment.

DEPR:
The HIV peptide served as a reliable molecular tag when fused to CD3. It permitted detection and purification of CD3 single chain fusion proteins. The

tagged molecules were purified by affinity chromatography using immobilized protein A (-Ig fusions) or 110.3 antibody (HIV fusions). The simple Sfv was used as a filtered supernatant solution, and approximate concentrations were estimated by titrating the supernatant's ability to inhibit binding of G19-4 antibody to Jurkat cells. We wished to investigate the cellular responses generated by the binding of these altered molecules to the CD3 T cell receptor complex. Each molecule was bound to indo-1 loaded peripheral blood lymphocytes or T cells and mobilization of intracellular calcium monitored by flow cytometry. As shown in FIGS. 5A-D, transmembrane signalling activity was increased for both the Ig and HIV fusion proteins when compared to equivalent concentrations of native G19-4 antibody. Although the simple Sfv generated a calcium signal, it was not as intense or prolonged as that observed for native antibody.

DEPR:
The sequences of the anti-CD3 variable regions are shown in FIG. 11, including the junction sequences for the mono- and bispecific derivatives. The Ig fusion proteins were purified by affinity chromatography using immobilized protein A and the Sfv was used as filtered supernatant. The concentration of Sfv was estimated by titrating the ability of the transfection supernatant to block the binding of known concentrations of parent G19-4 Mab to Jurkat cells. To analyze the signaling activity of the CD3Fv-Ig molecule, it was tested for its ability to induce tyrosine phosphorylation of PLC.gamma.1. Jurkat T cells were stimulated with the CD3Fv-Ig or native G19-4 Mab and proteins from the cell lysates were separated by SDS-PAGE, transferred to PDVF membrane, and probed with either anti-p-tyr or anti-PLC.gamma.1. Surprisingly, we found that the CD3Fv-Ig induced strong tyrosine phosphorylation of cellular proteins in whole cell lysates including PLC.gamma.1 and that a greater amount of pp35/36 phosphoprotein was associating with PLC.gamma.1 (FIGS. 12A-B). Moreover, both the CD3 Fv-Ig and the CD3 Sfv proteins induced calcium fluxes in PBL that were greater in magnitude than those observed for equivalent concentrations of native G19-4 Mab.

CLPR:
47. The soluble bispecific fusion protein of claim 37, wherein the molecular tag is an hemagglutinin epitope sequence HA1.

ORPL:
Huston, JS, "Multisite association by recombinant proteins can enhance binding selectivity. Preferential removal of immune complexes from serum by immobilized truncated FB analogues of the B domain from staphylococcal protein A", Biophys. J. Apr.;62(1):87-91 (1992) (Exhibit 3).

ORPL:
Capon et al., "Designing CD4 Immunoadhesions for AIDS Therapy", Nature 337:525-531 (1989) (Exhbit 2).

ORPL:
Orlandi et al., "Cloning Immunoglobulin Variable Domains for Expression by the Polymerase Chain Reaction", Proc. Nat. Acad. Sci. 86:3833-3837 (1989) (Exhibit 19).

WEST

Generate Collection

Search Results - Record(s) 1 through 10 of 15 returned.

☐ 1. Document ID: US 5989520 A

L21: Entry 1 of 15 File: USPT Nov 23, 1999

US-PAT-NO: 5989520
DOCUMENT-IDENTIFIER: US 5989520 A

TITLE: Site specific binding system, imaging compositions and methods

DATE-ISSUED: November 23, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lanza; Gregory M.	St. Louis	MO	N/A	N/A
Wickline; Samuel A.	St. Louis	MO	N/A	N/A

US-CL-CURRENT: 424/9.32; 424/178.1, 424/455, 424/9.321, 514/937

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 5958371 A

L21: Entry 2 of 15 File: USPT Sep 28, 1999

US-PAT-NO: 5958371
DOCUMENT-IDENTIFIER: US 5958371 A

TITLE: Site specific binding system, nuclear imaging compositions and methods

DATE-ISSUED: September 28, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lanza; Gregory M.	St. Louis	MO	N/A	N/A
Wickline; Samuel A.	St. Louis	MO	N/A	N/A

US-CL-CURRENT: 424/1.21; 424/1.29, 424/1.37

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 5955377 A

L21: Entry 3 of 15 File: USPT Sep 21, 1999

US-PAT-NO: 5955377
DOCUMENT-IDENTIFIER: US 5955377 A

TITLE: Methods and kits for the amplification of thin film based assays

DATE-ISSUED: September 21, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Maul; Diana M.	Thornton	CO	N/A	N/A
Bogart; Gregory R.	Fort Collins	CO	N/A	N/A

US-CL-CURRENT: 436/518; 356/364, 356/369, 356/370, 422/55, 422/57, 422/82.05, 422/82.11, 435/283.1, 435/287.2, 435/287.9 , 435/288.7, 435/5, 435/7.21, 435/7.32, 435/7.9, 435/7.92, 435/7.94, 435/808, 435/810, 436/164, 436/524, 436/525, 436/527, 436/531, 436/532, 436/533, 436/805

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 4. Document ID: US 5869272 A

L21: Entry 4 of 15 File: USPT Feb 9, 1999

US-PAT-NO: 5869272
DOCUMENT-IDENTIFIER: US 5869272 A

TITLE: Methods for detection of gram negative bacteria

DATE-ISSUED: February 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogart; Gregory R.	Berthoud	CO	N/A	N/A
Moddel; Garret R.	Boulder	CO	N/A	N/A
Maul; Diana M.	Thornton	CO	N/A	N/A
Etter; Jeffrey B.	Boulder	CO	N/A	N/A
Crosby; Mark	Niwot	CO	N/A	N/A

US-CL-CURRENT: 435/7.32; 356/345, 356/402, 356/445, 356/453, 422/82.05, 422/82.08, 435/7.36, 435/7.9, 435/7.92, 435/808 , 435/810, 436/163, 436/172, 436/174, 436/177, 436/518, 436/527, 436/531, 436/532, 436/63, 436/804, 436/805, 436/811

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 5. Document ID: US 5780010 A

L21: Entry 5 of 15 File: USPT Jul 14, 1998

US-PAT-NO: 5780010
DOCUMENT-IDENTIFIER: US 5780010 A

TITLE: Method of MRI using avidin-biotin conjugated emulsions as a site specific binding system

DATE-ISSUED: July 14, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lanza; Gregory M.	St. Louis	MO	N/A	N/A
Wickline; Samuel A.	St. Louis	MO	N/A	N/A

US-CL-CURRENT: 424/9.32; 424/9.321

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc | Image

---

☐ 6. Document ID: US 5690907 A

L21: Entry 6 of 15 File: USPT Nov 25, 1997

US-PAT-NO: 5690907
DOCUMENT-IDENTIFIER: US 5690907 A

TITLE: Avidin-biotin conjugated emulsions as a site specific binding system

DATE-ISSUED: November 25, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lanza; Gregory M.	St. Louis	MO	N/A	N/A
Wickline; Samuel A.	St. Louis	MO	N/A	N/A

US-CL-CURRENT: 424/9.5; 424/450, 424/455, 424/9.51, 428/402.2, 428/402.24, 435/111, 435/7.5, 514/937, 516/54, 516/56, 516/900, 516/907

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw. Desc | Image

---

☐ 7. Document ID: US 5639671 A

L21: Entry 7 of 15 File: USPT Jun 17, 1997

US-PAT-NO: 5639671
DOCUMENT-IDENTIFIER: US 5639671 A

TITLE: Methods for optimizing of an optical assay device

DATE-ISSUED: June 17, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogart; Gregory R.	Fort Collins	CO	N/A	N/A
Etter; Jeffrey B.	Boulder	CO	N/A	N/A

US-CL-CURRENT: 436/518; 359/581, 359/585, 359/586, 359/589, 422/55, 422/57, 422/82.05, 422/82.11, 427/162, 427/164, 427/165, 427/166, 427/167, 427/250, 427/255.37, 427/337, 427/338, 427/404, 427/419.1, 427/419.2, 435/4, 435/808, 436/164, 436/165, 436/524, 436/532

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 8. Document ID: US 5631171 A

L21: Entry 8 of 15 File: USPT May 20, 1997

US-PAT-NO: 5631171
DOCUMENT-IDENTIFIER: US 5631171 A

TITLE: Method and instrument for detection of change of thickness or refractive index for a thin film substrate

DATE-ISSUED: May 20, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Sandstrom; Torbjorn	Molnlycke	N/A	N/A	SEX
Stiblert; Lars	G oteborg	N/A	N/A	SEX
Maul; Diana M.	Thornton	CO	N/A	N/A

US-CL-CURRENT: 436/518; 356/357, 356/364, 356/369, 422/55, 422/82.05, 435/5, 435/808, 436/164, 436/524, 436/525, 436/527 , 436/805

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

---

☐ 9. Document ID: US 5629214 A

L21: Entry 9 of 15 File: USPT May 13, 1997

US-PAT-NO: 5629214
DOCUMENT-IDENTIFIER: US 5629214 A

TITLE: Methods for forming an optical device for detecting the presence or amount of an analyte

DATE-ISSUED: May 13, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Crosby; Mark	Niwot	CO	N/A	N/A

US-CL-CURRENT: 436/518; 427/162, 427/164, 427/165, 427/2.11, 427/2.13, 427/402, 427/407.1, 427/407.2, 427/409, 427/414, 427/419.1, 427/419.3, 435/287.1, 435/287.2, 435/288.7, 435/4, 435/7.21, 435/7.32, 435/808, 436/524, 436/528, 436/531, 436/532, 436/805

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 10. Document ID: US 5552272 A

L21: Entry 10 of 15 File: USPT Sep 3, 1996

US-PAT-NO: 5552272
DOCUMENT-IDENTIFIER: US 5552272 A

TITLE: Detection of an analyte by fluorescence using a thin film optical device

DATE-ISSUED: September 3, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogart; Gregory R.	Berthoud	CO	N/A	N/A

US-CL-CURRENT: 435/6; 359/580, 359/585, 422/55, 422/57, 422/82.05, 422/82.08, 435/7.2, 435/7.3, 435/7.32, 435/808, 435/810, 436/172, 436/518, 436/524, 436/525, 436/527, 436/528, 436/531, 436/805, 436/807

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

Generate Collection

Term	Documents
NUCLEIC.DWPI,EPAB,JPAB,USPT.	67930
NUCLEICS.DWPI,EPAB,JPAB,USPT.	8
ACID.DWPI,EPAB,JPAB,USPT.	1624547
ACIDS.DWPI,EPAB,JPAB,USPT.	463280
(18 AND (NUCLEIC ADJ ACID)).USPT,JPAB,EPAB,DWPI.	15

Display 5 Documents, starting with Document: 11

WEST

Help | Logout | Interrupt

Main Menu | Search Form | Posting Counts | Show S Numbers | Edit S Numbers | Preferences

Search Results -

Term	Documents
NUCLEIC.DWPI,EPAB,JPAB,USPT.	67930
NUCLEICS.DWPI,EPAB,JPAB,USPT.	8
ACID.DWPI,EPAB,JPAB,USPT.	1624547
ACIDS.DWPI,EPAB,JPAB,USPT.	463280
(18 AND (NUCLEIC ADJ ACID)).USPT,JPAB,EPAB,DWPI.	15

Database: US Patents Full-Text Database
US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Refine Search: `118 and nucleic acid` Clear

Search History

Today's Date: 6/29/2001

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	l18 and nucleic acid	15	L21
USPT,JPAB,EPAB,DWPI	l18 and PCR	0	L20
USPT,JPAB,EPAB,DWPI	l18 and (marker nucleic acid or labeled nucleic acid)	0	L19
USPT,JPAB,EPAB,DWPI	l16 and (epitope$1 near5 detect$)	19	L18
USPT,JPAB,EPAB,DWPI	l16 and epitope$1	49	L17
USPT,JPAB,EPAB,DWPI	l15 and Elisa	69	L16
USPT,JPAB,EPAB,DWPI	system near5 solid support$1	400	L15
USPT,JPAB,EPAB,DWPI	immuno-polymerase chain rection$1	0	L14
USPT,JPAB,EPAB,DWPI	immuno polymerase chain rection$1	0	L13
USPT,JPAB,EPAB,DWPI	immuno near5 polymerase chain rection$1	0	L12
USPT,JPAB,EPAB,DWPI	l8 and (Hemagglutinin or polyhistidine)	11	L11
USPT,JPAB,EPAB,DWPI	l8 and (Hemagglutminin or polyhistidine)	5	L10
USPT,JPAB,EPAB,DWPI	l8 and universal epitope	0	L9
USPT,JPAB,EPAB,DWPI	l7 and immobiliz$	89	L8
USPT,JPAB,EPAB,DWPI	l6 and epitope$1	121	L7
USPT,JPAB,EPAB,DWPI	l5 and immuno$ and polymerase$1	147	L6
USPT,JPAB,EPAB,DWPI	l4 and system$1 and kit$1	190	L5
USPT,JPAB,EPAB,DWPI	complementary determining region$1	355	L4
USPT,JPAB,EPAB,DWPI	complementary determining region$1 near5 kit	0	L3
USPT,JPAB,EPAB,DWPI	complementary determining region$1 near5 system$	0	L2
DWPI,USPT,EPAB,JPAB	complementary determining region$1 near5 system$ near5 kit	0	L1